



AALBORG UNIVERSITET

Fakultetskontoret for
ENGINEERING, SUND og TECH

Dokument dato: 17. marts 2017

Sagsbehandler: Rikke Poulsen

Sagsnr.:

Akademisk Råd indkaldes hermed til møde nr. 20171 onsdag den 29. marts 2017

kl. 12.30-16.00 NOVI, Niels Jernes Vej 10, mødelokale 1

Indkaldte:

Eskild Holm Nielsen, Petar Popovski, Knud Erik Skouby, Thomas Bak, Arne Remmen, Henrik Lund, Claus Lassen, Bent Thomsen, Ivan Aaen, Stefania Serafin, Mads Græsbøll Christensen, Morten Meyer Rasmussen, Lukas Bjørn Leer Bysted, Kristoffer Holger Weithøft Lindstrøm, Jacob Kjærsgaard, Torben Larsen, Kirsten Nielsen, Tine Lykke Tindal Sørensen

Afbud:

Knud Erik Skouby, Thomas Bak

Referent:

Rikke Poulsen

Gæster:

Anne Christoffersen – HR kontoret (pkt. 1.b), Kristian Vagn Nielsen – Økonomi (pkt. 10)

| | Dagsordenpunkter |
|----|---|
| 1. | Velkomst v. Eskild Holm Nielsen A. Præsentation af deltagerne B. Intro til Akademisk Råd v. Anne Christoffersen, HR-kontoret |
| 2. | Konstituering med valg af formand Bilag 20171-2 |
| 3. | Godkendelse A. Godkendelse af dagsorden for AR møde 20171 B. Mødekalender 2017 Orientering C. Tidsplan for skriftlige høringer 2017 D. Standardforretningsorden E. Vejledning til bedømmelsesudvalg F. Sammensætning af bedømmelsesudvalg Til efterretning G. Referat fra ph.d.-udvalgsmøde 7-2016 den 3. oktober 2016 H. Referat fra ph.d.-udvalgsmøde 8-2016 den 16. november 2016 I. Referat fra ph.d.-udvalgsmøde 9-2016 den 7. december 2016 |

| | |
|-----|---|
| | J. Referat fra ekstra ph.d.-udvalgsmøde den 14. februar 2017 Bilag 20171-3 |
| 4. | Tildeling af ph.d.-grad til positivt bedømte ph.d.-afhandlinger fra: A. Cand.polyt. Anja Marie Bundgaard, Institut for Planlægning. Afhandlingens titel: "Ecodesign for a circular economy. Regulating and Designing Electrical and Electronic Equipment". B. Cand.polyt. Burak Cakmak, Institut for Elektroniske Systemer. Afhandlingens titel: "Random Matrices for Information Processing – A Democratic Vision". C. Cand.polyt. Christer Peter Volk, Institut for Elektroniske Systemer. Afhandlingens titel: "Prediction of Perceptual Audio Reproduction Characteristics". D. Cand.polyt. Emil Feldborg Buskgaard, Institut for Elektroniske Systemer. Afhandlingens titel: "The Dynamics of the User Effect on Electrically Small Antennas". E. Cand.polyt. Jovan Varga, Institut for Datalogi. Afhandlingens titel: "Semantic Metadata for Supporting Exploratory OLAP". F. Cand.polyt. Madhukar Deshmukh, Institut for Elektroniske Systemer. Afhandlingens titel: "Spectrum Sensing Strategies in Cognitive Radio Networks". G. MSc Business Administration Mushtaque Ali Jariko, Institut for Planlægning. Afhandlingens titel: "Perception and Possibilities of Corporate Social Responsibility (CSR) in a Public Company of Pakistan, a case study of Pakistan State Oil (PSO)". H. MSc Business Administration Roslyn Layton, Institut for Elektroniske Systemer. Afhandlingens titel: "Which Open Internet Framework is Best for Mobile App Innovation? An Empirical Inquiry of Net Neutrality Rules Around the World". Bilag 20171-4 |
| 5. | Indstilling vedr. sammensætning af sagkyndigt udvalg vedr. professorstillingen i: A. "Machine Learning and Speech Processing" ved Institut for Elektroniske Systemer (60118) Bilag 20171-5 |
| 6. | Indstillinger vedr. sammensætning af sagkyndige udvalg vedr. lektor stillingerne i: A. "Marine Governance and Coastal Community Development" ved Institut for Planlægning (42215) B. "Land Management" ved Institut for Planlægning (42216/201705) Bilag 20171-6 |
| 7. | Indstilling vedr. sammensætning af sagkyndigt udvalg vedr. adjunktstillingen i: A. "Energy Planning" ved Institut for Planlægning (201706) Bilag 20171-7 |
| 8. | Indstilling vedr. sammensætning af sagkyndigt udvalg vedr. postdoc-stillingen i: A. "Statistics and Spatial Analysis of weather impacts on local fluctuations in e.g. wind and demands data and distribution data for energy system analyses" ved Institut for Planlægning (P21706) Bilag 20171-8 |
| 9. | Shortlisting i forbindelse med bedømmelsesproces Bilag 20171-9 |
| 10. | Tema: Intro til økonomi – årsresultat 2016 v. Kristian Vagn Nielsen, Økonomi Introduktion til økonomi for AR-medlemmer samt orientering om årsresultat 2016. Bilag 20171-10 |
| 11. | Meddelelser fra dekanen |

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| 12. | Temaer Drøftelse af temaer til kommende AR-møder i 2017. |
| | |
| 13. | Eventuelt |
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Til orientering

- Fortegnelse over sager godkendt af dekanen siden sidst

OBS! Vedr. bedømmelsesudvalg: I de tilfælde hvor ansøgningsfristen ligger efter Akademisk Råds møde kontrolleres der efterfølgende for inhabilitet og sammensætning af udvalget (kvindelig bedømmer). Hvis der konstateres uregelmæssigheder, vil dekanen/formanden godkende nyt/nye medlemmer.

Pkt. 2.:Valg af formand

- På Akademisk Råds møde den 29. marts 2017 skal det nye TECH Akademiske Råd konstitueres, og der skal vælges en formand for rådet.
- Universitetsloven og AAU's vedtægt (af 11. juni 2012) § 23, stk. 3 "*...rådet med simpelt flertal vælger en formand blandt sin midte*".
- Formandens kompetencer og opgaver følger Standardforretningsordenen for kollegiale organer ved Aalborg Universitet (af 30. maj 2005).
- Dekanen er stedfortræder ved formandens fravær.



TECH Mødekalender 2017

| FEBRUAR | | MARTS | | APRIL | | MAJ | | JUNI | | JULI | |
|---------|--------------------|-------|----|-------|---------------------|------|---------------------|------|----------------|------|---------------------|
| O 1 | 5 | O 1 | | L 1 | | M 1 | 18 | T 1 | | L 1 | |
| T 2 | | T 2 | | S 2 | | T 2 | | F 2 | | S 2 | |
| F 3 | | F 3 | | M 3 | Skriftlig høring 14 | O 3 | | L 3 | | M 3 | Skriftlig høring 27 |
| L 4 | | L 4 | | T 4 | | T 4 | | S 4 | Pinsedag | T 4 | |
| S 5 | | S 5 | | O 5 | | F 5 | | M 5 | 1. Pinsedag 23 | O 5 | |
| M 6 | Skriftlig høring 6 | M 6 | 10 | T 6 | | L 6 | | T 6 | | T 6 | |
| T 7 | | T 7 | | F 7 | | S 7 | | O 7 | | F 7 | |
| O 8 | | O 8 | | L 8 | | M 8 | 19 | T 8 | | L 8 | |
| T 9 | | T 9 | | S 9 | | T 9 | | F 9 | | S 9 | |
| F 10 | | F 10 | | M 10 | 15 | O 10 | | L 10 | | M 10 | 28 |
| L 11 | | L 11 | | T 11 | | T 11 | | S 11 | | T 11 | |
| S 12 | | S 12 | | O 12 | | F 12 | St. Bededag | M 12 | 24 | O 12 | |
| M 13 | | M 13 | 11 | T 13 | Skærtorsdag | L 13 | | T 13 | | T 13 | |
| T 14 | | T 14 | | F 14 | Langfredag | S 14 | | O 14 | | F 14 | |
| O 15 | | O 15 | | L 15 | | M 15 | 20 | T 15 | | L 15 | |
| T 16 | | T 16 | | S 16 | Påskedag | T 16 | | F 16 | | S 16 | |
| F 17 | | F 17 | | M 17 | 1. Påskedag 16 | O 17 | AR | L 17 | | M 17 | 29 |
| L 18 | | L 18 | | T 18 | | T 18 | | S 18 | | T 18 | |
| S 19 | | S 19 | | O 19 | | O 19 | | M 19 | 25 | O 19 | |
| M 20 | 8 | M 20 | 12 | T 20 | | L 20 | | T 20 | | T 20 | |
| T 21 | | T 21 | | F 21 | | S 21 | | O 21 | AR | F 21 | |
| O 22 | | O 22 | | L 22 | | M 22 | 21 | T 22 | | L 22 | |
| T 23 | | T 23 | | S 23 | | T 23 | | F 23 | | S 23 | |
| F 24 | | F 24 | | M 24 | 17 | O 24 | | L 24 | | M 24 | 30 |
| L 25 | | L 25 | | T 25 | | T 25 | Kr. Himmelfartsdag | S 25 | | T 25 | |
| S 26 | | S 26 | | O 26 | | F 26 | | M 26 | 26 | O 26 | |
| M 27 | 9 | M 27 | 13 | T 27 | | L 27 | | T 27 | | T 27 | |
| T 28 | | T 28 | | F 28 | | S 28 | | O 28 | | F 28 | |
| | | O 29 | AR | L 29 | | M 29 | Skriftlig høring 22 | T 29 | | L 29 | |
| | | T 30 | | S 30 | | T 30 | | F 30 | | S 30 | |
| | | F 31 | | | | O 31 | | | | M 31 | 31 |



AALBORG UNIVERSITET

Fakultetskontoret for
ENGINEERING, SUND og TECH
Niels Jernes Vej 10
9220 Aalborg

HR-centeret

Dato: 19.01.16

Procesplan for nedsættelse af bedømmelsesudvalg i Akademisk Råd, TECH

Nedsættelse af bedømmelsesudvalg ved skriftlig høring sker med jævne mellemrum mellem de ordinære møder i Akademisk Råd. Den anden onsdag i august måned er der sommerprocedure, hvor der også medtages godkendelse af Ph.d. grader.

Plan for skriftlig høring ved Akademisk Råd TECH 2017

| Punkter sendes i høring | Frist for tilbagemelding fra AR |
|-------------------------------------|---------------------------------|
| Mandag 6. februar | Onsdag 8. februar |
| Mandag 3. april | Onsdag 5. april |
| Mandag 29. maj | Onsdag 31. maj |
| Mandag 3. juli | Onsdag 5. juli |
| Sommerprocedure Onsdag 9. august | Onsdag 16. august |
| Mandag 2. oktober | Onsdag 4. oktober |
| Mandag 6. november | Onsdag 8. november |
| Mandag 4. december | Onsdag 6. december |

Skriftlige høringer vedr. indstillinger om sammensætning af bedømmelsesudvalg til videnskabelige stillinger vil blive udsendt via Akademisk Råd Intranet med en svarfrist på 3 dage. Ved sommerproceduren i august er der en svarfrist på 7 dage. Der gøres opmærksom på udsendelsen via en mødeindkaldelse i Outlook, der vil indeholde dagsorden samt et link til en doodle, hvori medlemmer kan tilkendegive om de godkender/ikke godkender udvalgene.

Dokumentationen som ligger til grund for nedsættelse af bedømmelsesudvalg vil være en oversigt over bedømmelsesudvalgets medlemmer med angivelse af, hvem der er formand samt CV'er for de eksterne bedømmere og stillingsopslaget.

Tilbagemelding fra akademisk råds medlemmer

Der skal aktivt meldes tilbage fra akademisk råds medlemmer via doodlen.

Ingen indsigelser

Såfremt der ikke er indsigelser sendes der udelukkende svar/tilkendegivelse via doodlen.

Indsigelser

Såfremt der er bemærkninger og/eller indsigelser sendes der svar/tilkendegivelse til alle på akademisk råds mailliste.

Alle bemærkninger/kommentarer der måtte indkomme under en skriftlig høring, vil blive forelagt og drøftet med dekanen/formanden. Hvorefter der vil ske tilbagemelding til akademisk råd via mail.

Et medlem kan ligeledes begære en sag behandlet på det førstkommende møde i Akademisk Råd. Ved tvivls-spørgsmål vil sagen altid blive behandlet på det førstkommende møde.

Inhabilitet

Såfremt et medlem erklærer sig inhabil i relation til behandling af en konkret sag informeres sekretæren herom. Sekretæren informerer de øvrige af rådets medlemmer med information om, at den efterfølgende korrespondance ikke sendes til pågældende medlem.

Vedkommende er ikke stemmeberettiget i den aktuelle sag. Medlemmet skal selv oplyse ved tilbagemeldingen, at sag nr. XXX ikke er behandlet grundet inhabilitet, gøres via kommentarfeltet i doodlen.

Kontaktpersoner

Der kan sendes mail til Hanne Skovrider has@adm.aau.dk og/eller Rikke Poulsen rpo@adm.aau.dk

Evaluering

Proces for skriftlig høring evalueres løbende på Akademisk Råd møderne, så medlemmerne er i dialog om processen for nedsættelse af bedømmelsesudvalg.

Drøftelsen skal tages op ved marts møderne, så nye medlemmer, der indtræder i Akademisk Råd den 1. februar introduceres til procesplanen.

30. maj 2005

AT/lt

J.nr. 2005-003/01-0002

STANDARDFORRETNINGSORDEN FOR KOLLEGIALE ORGANER VED AALBORG UNIVERSITET

I henhold til vedtægt for Aalborg Universitet fastsættes herved følgende standardforretningsorden for de kollegiale organer ved universitetet:

De kollegiale organers møder

§ 1. De kollegiale organer udøver deres virksomhed i møder.

Stk. 2. Der fastsættes årligt en mødeplan for de akademiske råds, institutudvalgenes og studienævnenes ordinære møder.

Stk. 3. Ekstraordinære møder i de i stk. 2 nævnte organer afholdes, når formanden finder det fornødent. Formanden er forpligtet til at indkalde til ekstraordinært møde, når 1/3 af det kollegiale organs medlemmer skriftligt fremsætter begæring herom med angivelse af dagsorden. Mødet skal i så fald afholdes inden 14 dage efter formandens modtagelse af begæringen. Såfremt begæringen vedrører en sag, hvor en tidsfrist indebærer, at sagen ændrer karakter eller forpasses, er formanden forpligtet til at søge mødet afholdt inden fristens udløb.

§ 2. Møderne er åbne medmindre det på grund af sagens beskaffenhed eller omstændighederne i øvrigt findes nødvendigt at behandle en sag for lukkede døre. Alle personsager, samt sager, hvori indgår oplysninger om kontraktforhandlinger med private eller tilsvarende forhandlinger med offentlige samarbejdspartnere, og sager, der er omfattet af forvaltningslovens bestemmelser om tavshedspligt, skal behandles for lukkede døre.

Stk. 2. Formanden kan bestemme, at drøftelsen om, hvorvidt en sag skal behandles for lukkede døre, foregår for lukkede døre.

Stk. 3. Sager, der behandles for lukkede døre, behandles så vidt muligt sidst.

§ 3. Et medlem af et kollegialt organ, der har forfald, har pligt til forud for mødet at meddele dette til formanden eller sekretæren.

§ 4. Enhver har - i det omfang pladsforholdene tillader det - adgang til at overvære de kollegiale organers åbne møder under iagttagelse af god ro og orden. Såfremt en tilhører forstyrrer forhandlingerne, kan formanden udelukke den pågældende eller om fornødent samtlige tilhørere fra mødet.

Mødeindkaldelser og sagernes fremlæggelse

§ 5. Dagsordenen og de for sagsbehandlingen nødvendige oplysninger udsendes mindst 5 arbejdsdage før mødets afholdelse. Såfremt særlige grunde gør det påkrævet, kan indkaldelse efter formandens eller rektors bestemmelse ske med kortere varsel.

Stk. 2. Optagelse af punkter på dagsordenen kan kræves af hvert medlem og af rektor. Dagsordenspunkter til ordinære møder samt materiale til disse skal være sekretæren eller formanden i hænde senest 8 dage før mødets afholdelse. Formanden eller rektor kan dog, når særlige grunde taler derfor, dispensere fra denne frist.

Stk. 3. Det kollegiale organ vedtager selv sin endelige dagsorden ved mødets begyndelse. Ethvert medlem har i denne forbindelse ret til at få ordet.

Oplysninger, der er tilvejebragt til bedømmelse af sagerne, og som ikke er udsendt efter stk. 1 skal fremlægges til medlemmernes eftersyn inden den nævnte frist på den pågældende sekretærs kontor.

Beslutning kan kun træffes i sager, der er optaget som selvstændige punkter på den udsendte dagsorden. Der kan dog træffes beslutning i hastende sager, selvom disse ikke er på dagsordenen, hvis 2/3 af medlemmerne er til stede og tiltræder, at sagen behandles.

Stk. 4. Dagsorden for møder i akademisk råd, institutudvalg og studienævn offentliggøres på nettet samtidig med udsendelsen til de kollegiale organer. Ved offentliggørelsen foretages nødvendige ændringer af dagsordenens formulering til sikring af, at denne ikke indeholder oplysninger, som er undergivet tavshedspligt.

Stk. 5. I de tilfælde, hvor det findes af betydning for en sags behandling, kan de kollegiale organer indkalde udenforstående til mødet til at deltage i sagens behandling uden stemmeret.

Mødets afholdelse, mødeledelse, forhandling og afstemninger

§ 6. Det kollegiale organ er beslutningsdygtigt, såfremt mindst halvdelen af medlemmerne er til stede.

Stk. 2. Ved mødets begyndelse registrerer formanden medlemmernes antal og konstaterer, om det kollegiale organ er beslutningsdygtigt og indkaldt med lovligt varsel. Forlader et medlem mødet på grund af forfald, underrettes sekretæren.

§ 7. Formanden leder møderne. Formanden træffer bestemmelse i alle spørgsmål vedrørende forhandlingernes ledelse og iagttagelse af god orden under mødet. Endvidere formulerer formanden de forslag, om hvilke der skal stemmes, og fastlægger afstemningsproceduren. Et medlem kan dog altid forlange, at et af vedkommende fremsat og formuleret forslag sættes under afstemning.

Stk. 2. Er der fremsat mere end 2 hovedforslag, afgør formanden, om afstemningen skal foretages med relativt flertal, således at forslag, der har fået flest af de afgivne stemmer, er vedtaget, eller om afstemningen skal foretages over flere omgange.

Er der til et hovedforslag fremsat et eller flere ændringsforslag, skal der først afstemmes om ændringsforslaget eller ændringsforslagene. I tilfælde af flere ændringsforslag skal det efter formandens skøn mest vidtgående ændringsforslag sættes under afstemning først.

Stk. 3. Afstemning sker ved håndsoprækning. Et medlem kan dog kræve skriftlig afstemning.

Stk. 4. Fremkommer der på et møde forslag om større ændringer til en indstilling mv., eller er meningerne stærkt divergerende, kan formanden bestemme, at sagen udskydes til endelig afgørelse på et senere møde. I tilslutning hertil kan formanden bestemme, at ændringsforslag skal foreligge skriftligt til udsendelse forud for dette senere møde, således at der - bortset fra rene justeringer - ikke ved den efterfølgende drøftelse kan stilles andre ændringsforslag end dem, der er udsendt forud for mødet.

§ 8. Hvor formanden vurderer, at der kan forventes tilslutning til et fremsat forslag, ved en evt. afstemning foreslår formanden, at forslaget betragtes som vedtaget uden afstemning. Såfremt intet medlem herefter forlanger afstemning, kan formanden erklære sagen for afgjort i overensstemmelse med sin tilkendegivne opfattelse.

§ 9. Beslutninger træffes ved almindeligt stemmeflertal blandt de fremmødte medlemmer, medmindre andet er særligt lovhjemlet for specielle sagsområder.

Stk. 2. Står stemmerne lige er formandens stemme udslagsgivende.

Bemyndigelse

§ 10. Akademisk råd og studienævn kan i særlige tilfælde bemyndige hhv. dekanen og studielederen til at træffe afgørelse i de under akademisk råd eller studienævnet hørende sager.

Valg af formand og næstformand i studienævn

§ 11. Studienævnet vælger på det første møde efter nyvalg af sin midte en formand blandt de heltidsansatte videnskabelige medarbejdere og en næstformand blandt de studerende. Formanden leder studienævnets møder. Studienævnets formand og næstformand forbereder møderne i fællesskab.

Stk. 2. Indtil valg har fundet sted, ledes studienævnets møde af en ordstyrer, der vælges ved enstemmighed af og blandt studienævnets medlemmer. Kan der ikke opnås enighed, ledes mødet af studienævnets ældste medlem (biologisk alder).

Stk. 3. Studienævnet vælger på første møde efter nyvalg, hvem der indstilles til dekanen som studieleder, normalt studienævnsformanden. Indstilles en anden end studienævnsformanden, eller indstilles flere studieledere, skal dette begrundes. Dekanen kan godkende, at studieleders ansvarsområde går på tværs af studienævn.

Institutudvalg

§ 12. Institutudvalget rådgiver institutlederen om generelle retningslinjer for instituttets virksomhed og udvikling, om forskningsplaner, om undervisningsplaner og andre overordnede forhold. Institutudvalget orienteres om og kan knytte bemærkninger til instituttets budget og regnskab. Dekanen fastlægger de nærmere retningslinjer for institutudvalgets funktion og samspil med institutlederen.

Medlemmernes deltagelse i forhandlinger og afstemninger

§ 13. Det er en tjenesteplicht for universitetets medarbejdere at indtræde i de i vedtægten omtalte kollegiale organer, såfremt de vælges eller udpeges hertil. Det er endvidere en tjenesteplicht at modtage valg til posten som formand for studienævnet og at modtage udpegnings som studieleder.

Medlemmer af universitetets kollegiale organer har pligt til at deltage i disses møder.

Stk. 2. Når et valgt medlem af et kollegialt organ mister sin valgbarhed i løbet af valgperioden¹, eller erklæres inhabil², eller når et medlem ved fravær af længere varighed er ude af stand til at deltage i det kollegiale organs arbejde³, indkaldes den pågældendes suppleant.

Stk. 3. Et kollegialt organ kan træffe beslutning om, at et medlem af organet har en sådan uvedkommende interesse i en sag, hvorom der skal træffes beslutning, at vedkommende er udelukket fra at deltage i forhandlinger og afstemninger i sagen efter almindelige regler om inhabilitet.

Stk. 4. Medlemmet skal underrette det kollegiale organ, hvis der foreligger forhold, der bevirker inhabilitet, eller som kan give anledning til tvivl om vedkommendes habilitet. Medlemmet skal så vidt muligt give formanden meddelelse om sådanne forhold inden mødets afholdelse. Det kollegiale organ afgør herefter, hvorvidt det pågældende medlem skal vige sædet under sagens behandling, jf. stk. 3. Et medlem kan ikke være til stede og deltage i behandlingen af og afstemninger om spørgsmål vedrørende sin habilitet.

Referater og ekspedition af de behandlede sager

§ 14. Der udarbejdes referat af de kollegiale organers møder. Det kollegiale organs beslutninger refereres som beslutningsreferat, mens der for øvrige punkter udarbejdes et kort orienteringsreferat. Referatet udsendes til godkendelse på organets næste møde. Mødereferater lægges på nettet.

Stk. 2. Ethvert af medlemmerne, faste observatører samt de i henhold til § 5, stk. 5 tilkaldte personer, kan forlange sin afvigende mening kort optaget i beslutningsreferatet. Et sådant forlangende skal fremsættes inden dagsordenspunktets færdigbehandling med angivelse af indholdet heraf.

¹ fx ved ansættelses- eller studieophør eller ved overflytning til et andet fakultet institut eller studienævn

² i sager hvor organet har beslutningskompetence. Suppleanten indkaldes ad hoc til det pågældende punkt på dagsordenen

³ fx pga. sygdom eller bortrejse. Godkendes fraværet som lovligt, indtræder suppleanten for fraværsperioden

Stk. 3. Referatet skal i øvrigt indeholde oplysning om, hvilke medlemmer der var til stede ved mødets begyndelse, jf. § 6, stk. 2.

Stk. 4. Ekspeditionen af de af det kollegiale organ behandlede sager påhviler formanden, der herved bistås af universitetets administration. Henvendelser fra de kollegiale organer eller deres formand til myndigheder uden for institutionen skal ekspederes gennem rektor.

Spørgsmål vedrørende forretningsordenens forståelse

§ 15. Ethvert medlem er forpligtet til foreløbigt at rette sig efter formandens afgørelse med hensyn til forståelsen af forretningsordenens bestemmelser, indtil anden afgørelse er truffet af rektor.



AALBORG UNIVERSITET

Fakultetskontoret for
Det Sundhedsvidenskabelige Fakultet,
Det Tekniske Fakultet for IT og Design,
og Det Ingeniør- og Naturvidenskabelige
Fakultet

Dokument dato: September 2015

Dokumentansvarlig: HR-centeret

Senest revideret¹: 06.10.16

Senest revideret af: Nickie Hermansen

Sagsnr.:

Vejledning til sagkyndige bedømmelsesudvalg

Det praktiske:

På baggrund af bedømmelseskemaet i bedømmelsesportalen udfærdiger bedømmelsesudvalgets medlemmer og eventuel sekretær én bedømmelse pr. ansøger, hvor hver bedømmelse skal underskrives af alle medlemmer. Det er tilstrækkeligt med scannede kopier af den underskrevne bedømmelse sendt pr. mail.

Såfremt der er punkter i skemaet, udvalget ikke har grundlag til at vurdere, angives dette under det pågældende punkt.

Der kan i særlige tilfælde rekvireres yderligere materiale fra ansøgere. I sådanne tilfælde skal ALLE ansøgere have muligheden for at sende yderligere materiale.

Al korrespondance til ansøgere skal foregå gennem fakultetskontorets HR-center.

Der må ikke prioriteres blandt ansøgerne, men udvalget kan i indstillingen angive såfremt en ansøger er særligt kvalificeret.

Det skal tydeligt fremgå af bedømmelsen, hvorvidt ansøger er vurderet kvalificeret eller ej.

Såfremt der *ikke* er tale om enstemmig indstilling, skal meningsforskellene tydeligt fremgå af indstillingen.

Såfremt alle bedømmelsesudvalgets medlemmer er enige om, at en ansøger ikke er kvalificeret, kan udvalget indskrænke sig til at anføre dette med en kort angivelse af, hvilke kvalifikationskrav ansøgeren ikke opfylder. Der kan f.eks. være tale om et utilstrækkeligt fagligt niveau, eller at ansøgerens faglige kvalifikationer falder uden for stillingens centrale fagområde(r).

Ansøgere vil få tilsendt den endelige bedømmelse og vil have mulighed for at komme med indsigelser. Såfremt fakultetskontoret videresender en indsigelse fra en ansøger til udvalget, skal bedømmelsesudvalgets udtalelse hertil udarbejdes af formanden i samråd med udvalgets øvrige medlemmer og underskrives af formanden efter bemyndigelse fra de øvrige medlemmer.

Bedømmelsesudvalgets medlemmer skal selv tage stilling til spørgsmålet om inhabilitet. Det påhviler formanden at sikre, at udvalgets medlemmer er orienteret herom, og at hvert medlem tager stilling til, om han/hun er inhabil i forhold til én eller flere ansøgere¹.

¹ Jf. Bestemmelserne om inhabilitet i Forvaltningslovens kapitel 2

¹ Revisionen den 6.10.2016 skal ses i lyset af, at Det Teknisk-Naturvidenskabelige Fakultet bliver opdelt i to fakulteter pr. 1.1.2017. Ved revisionen blev der lavet en samlet vejledning for SUND, TECH og ENGINEERING.

Større ændringer af dette dokument skal godkendes af Akademisk Råd og dekanen.

Efter bedømmelsesarbejdet vil de eksterne medlemmer af bedømmelsesudvalget modtage et skema, som de bedes udfylde og sende til HR-centeret med henblik på udbetaling af honorar for bedømmelsesudvalgsarbejdet.

Det faglige:

Stillinger på adjunkt-niveau:

Ansættelse som adjunkt/forsker/post doc forudsætter videnskabelige kvalifikationer svarende til ph.d.-niveau. Dette kvalifikationskrav kan være opfyldt på flere måder:

- a. Hvis en ansøger har været i et forskeruddannelsesforløb, forventes kvalifikationskravene at være opfyldte ved, at ansøgeren har erhvervet ph.d.-graden inden for fagområdet.
- b. I andre tilfælde kan ansøgeren ved at indsende skriftlige videnskabelige arbejder, som ikke er blevet ph.d. bedømt dokumentere de nødvendige kvalifikationer.
- c. I særlige tilfælde kan de nødvendige kvalifikationer være erhvervet på anden måde, f.eks. ved varetagelse af forsknings- og/eller udviklingsarbejde i erhvervslivet. Såfremt dette er tilfældet skal det fremgå af indstillingen, hvorledes disse kvalifikationer er dokumenteret.

Stillinger på lektor-niveau:

En ansøger til en stilling som lektor/seniorforsker bedømmes på de kvalifikationer, der stilles krav om i stillingsopslaget. Ansættelse som lektor/seniorforsker forudsætter forskningsmæssige kvalifikationer på det niveau, der kan opnås på grundlag af en tilfredsstillende gennemført ansættelsesperiode som adjunkt/forsker, men vil også kunne opnås på anden måde. Det forudsættes, at ansøgere har modtaget supervision og pædagogisk opkvalificering og har modtaget en positiv skriftlig vurdering af sine undervisningsmæssige kvalifikationer (se dog nedenfor). Ved ansættelse kan der også stilles andre kvalifikationskrav f.eks. i forhold til viden – og teknologioverførsel samt eksempelvis patentering og samarbejde med eksterne parter. For en ansøger, der af udvalget erklæres kvalificeret, men som ikke har haft en adjunktansættelse, skal det anføres hvorledes ansøgeren opfylder kravet. Der kan f.eks. være tale om, at ansøgeren opfylder kravet på grundlag af kvalificeret videnskabeligt arbejde, som er udført i erhvervslivet.

Ph.d.-grad skal som udgangspunkt være tildelt inden lektoransættelse for ansøgere, der har gennemført en forskeruddannelse.

Det er som udgangspunkt et krav for fastansættelse, at ansøgeren har gennemført AAU's pædagogiske kursus eller har dokumenteret tilsvarende erfaringer. Såfremt en ansøger er uden tilstrækkelig undervisningserfaring anføres dette.

Inden ansættelse af en lektor høres institutlederen og studielederen inden for det pågældende fagområde.

Stillinger på professor-niveau

En ansøger til et professorat bedømmes på de kvalifikationer, der stilles krav om i stillingsopslaget. Dog skal der kunne dokumenteres en høj grad af original videnskabelig produktion på internationalt niveau. Det skal herved dokumenteres, at ansøgeren har udviklet fagområdet.

Endvidere skal der lægges vægt på en vurdering af vedkommendes evne til at varetage forskningsledelse og evt. andre ledelsesfunktioner, f.eks. i relation til universitetets eksterne samarbejde. Ved ansættelse kan der også stilles andre kvalifikationskrav f.eks. i forhold til viden- og teknologioverførsel samt f.eks. patentering og samarbejde med eksterne parter.

For en ansøger, der af udvalget erklæres kvalificeret, men som ikke har haft en adjunktansættelse/lektoransættelse, skal det anføres hvorledes ansøgeren opfylder kravet. Der kan f.eks.

være tale om, at ansøgeren opfylder kravet på grundlag af kvalificeret videnskabeligt arbejde, som er udført i erhvervslivet.

Ph.d.-grad skal som udgangspunkt være tildelt inden ansættelse for ansøgere, der har gennemført en forskeruddannelse.

Det er som udgangspunkt et krav for fastansættelse, at ansøgeren har gennemført AAU's pædagogiske kursus eller har dokumenteret tilsvarende erfaringer. Såfremt en ansøger er uden tilstrækkelig undervisningserfaring anføres dette.

Inden ansættelse af en professor høres institutlederen og studielederen inden for det pågældende fagområde.

Det retslige:

- Bedømmelse og ansættelser er underlagt nedenstående:
- Ministeriets bekendtgørelse nr. 242 af 13. marts 2012 om ansættelse af videnskabeligt personale ved universiteter (ansættelsesbekendtgørelsen).
- Det Teknisk-Naturvidenskabelige Fakultets supplerende regler af september 2013 vedr. ansættelse af videnskabeligt personale.
- Bekendtgørelse om stillingsstruktur for videnskabeligt personale ved universiteter
<https://www.retsinformation.dk/forms/R0710.aspx?id=172954>
- Aalborg Universitets overordnede regelsæt for bedømmelsesarbejde.
[http://www.aauhaandbog.aau.dk/file/5025/Regler for bed%C3%B8mmelse p%C3%A5 Aalborg Universitet_010913.pdf](http://www.aauhaandbog.aau.dk/file/5025/Regler%20for%20bed%C3%B8mmelse%20p%C3%A5%20Aalborg%20Universitet_010913.pdf)

TECH Mødekalender 2017

| AUGUST | | SEPTEMBER | | OKTOBER | | NOVEMBER | | DECEMBER | | JANUAR (2018) | |
|--------|-----------------|-----------|----|---------|---------------------|----------|---------------------|----------|---------------|---------------|----|
| T 1 | | F 1 | | S 1 | | O 1 | | F 1 | | M 1 | 1 |
| O 2 | | L 2 | | M 2 | Skriftlig høring 40 | T 2 | | L 2 | | T 2 | |
| T 2 | | S 3 | | T 3 | | F 3 | | S 3 | | O 3 | |
| F 4 | | M 4 | 36 | O 4 | | L 4 | | M 4 | 49 | T 4 | |
| L 5 | | T 5 | | T 5 | | S 5 | | T 5 | | F 5 | |
| S 6 | | O 6 | AR | F 6 | | M 6 | Skriftlig høring 45 | O 6 | AR | L 6 | |
| M 7 | 32 | T 7 | | L 7 | | T 7 | | T 7 | | S 7 | |
| T 8 | | F 8 | | S 8 | | O 8 | | F 8 | | M 8 | 2 |
| O 9 | Sommerprocedure | L 9 | | M 9 | 41 | T 9 | | L 9 | | T 9 | |
| T 10 | | S 10 | | T 10 | | F 10 | | S 10 | | O 10 | AR |
| F 11 | | M 11 | 37 | O 11 | | L 11 | | M 11 | 50 | T 11 | |
| L 12 | | T 12 | | T 12 | | S 12 | | T 12 | | F 12 | |
| S 13 | | O 13 | | F 13 | | M 13 | 46 | O 13 | | L 13 | |
| M 14 | 33 | T 14 | | L 14 | | T 14 | | T 14 | | S 14 | |
| T 15 | | F 15 | | S 15 | | O 15 | | F 15 | | M 15 | 3 |
| O 16 | | L 16 | | M 16 | 42 | T 16 | | L 16 | | T 16 | |
| T 17 | | S 17 | | T 17 | | F 17 | | S 17 | | O 17 | |
| F 18 | | M 18 | 38 | O 18 | | L 18 | | M 18 | 51 | T 18 | |
| L 19 | | T 19 | | T 19 | | S 19 | | T 19 | | F 19 | |
| S 20 | | O 20 | | F 20 | | M 20 | 47 | O 20 | AR ekstra? | L 20 | |
| M 21 | 34 | T 21 | | L 21 | | T 21 | | T 21 | | S 21 | |
| T 22 | | F 22 | | S 22 | | O 22 | | F 22 | | M 22 | 4 |
| O 23 | | L 23 | | M 23 | 43 | T 23 | | L 23 | | T 23 | |
| T 24 | | S 24 | | T 24 | | F 24 | | S 24 | | O 24 | |
| F 25 | | M 25 | 39 | O 25 | AR | L 25 | | M 25 | 1. juledag 52 | T 25 | |
| L 26 | | T 26 | | T 26 | | S 26 | | T 26 | 2. juledag | F 26 | |
| S 27 | | O 27 | | F 27 | | M 27 | 48 | O 27 | | L 27 | |
| M 28 | 35 | T 28 | | L 28 | | T 28 | | T 28 | | S 28 | |
| T 29 | | F 29 | | S 29 | | O 29 | | F 29 | | M 29 | 5 |
| O 30 | | L 30 | | M 30 | 44 | T 30 | | L 30 | | T 30 | |
| T 31 | | | | T 31 | | | | S 31 | | O 31 | |



AALBORG UNIVERSITET

**Fakultetskontoret for
Det Sundhedsvidenskabelige Fakultet,
Det Tekniske Fakultet for IT og Design,
og Det Ingeniør- og Naturvidenskabelige
Fakultet**

Dokument dato: 1.9.2013

Dokumentansvarlig: HR-centeret

Senest revideret¹: 01-12-2016

Senest revideret af: Nickie Hermansen

Sagsnr.:

Vejledning til institutterne vedr. sammensætning af bedømmelsesudvalg for videnskabelige stillinger.

Professor (MSO, klinisk professor):

En intern formand

To eksterne bedømmere. Den ene af de to bedømmere tilstræbes at komme fra en udenlandsk uddannelsesinstitution.

Bedømmerne skal være på professorniveau.

Bedømmelsesudvalgene godkendes af Akademisk Råd.

Lektor (klinisk lektor):

En intern formand

To eksterne bedømmere.

Bedømmerne skal være på mindst lektorniveau.

Bedømmelsesudvalgene godkendes af Akademisk Råd.

Adjunkt/forsker:

En intern formand

En ekstern bedømmer

Bedømmerne skal være på mindst lektorniveau.

Bedømmelsesudvalgene godkendes af Akademisk Råd.

Postdoc:¹

En intern formand

En intern bedømmer

¹ Revision 4. december 2013 (AR/TEKNAT) og skal ses i lyset af ny stillingsstruktur og har medført følgende ændringer: ny sammensætning af bedømmelsesudvalg for postdocstillinger.

Revision 31. august 2016 (AR/SUND) og skal ses i lyset af uklarhed omkring sammensætning for postdoc-stillinger i forhold til om AR/SUND fulgte den ovenstående revision fra 2013. Deraf indført note om, at den interne bedømmer kan udskiftes med en ekstern.

Revisionen i december 2016 skal ses i lyset af, at Det Teknisk-Naturvidenskabelige Fakultet bliver opdelt i to fakulteter pr. 1.1.2017. Ved revisionen blev der lavet en samlet vejledning for SUND, TECH og ENGINEERING.

Større ændringer godkendes af AR

Videnskabelig assistent (klinisk assistent):

En sagkyndig person varetager bedømmelsen.

Den sagkyndige person skal være på mindst lektorniveau.

Den sagkyndige person godkendes af dekanen.

Studieadjunkt/studielektor (klinisk lærer):

To sagkyndige personer varetager bedømmelsen.

De sagkyndige personer skal være på mindst lektorniveau.

De sagkyndige personer godkendes af dekanen.

DVIP: Ekstern lektor/undervisningsassistenter:

En sagkyndig person varetager bedømmelsen.

Den sagkyndige person skal være på mindst lektorniveau.

Den sagkyndige person godkendes af institutleder.

Ph.d.:

To sagkyndige personer varetager bedømmelsen.

Bedømmerne skal være på mindst lektorniveau.

De sagkyndige personer godkendes af institutleder. Den programansvarlige er født medlem.

Generelle regler ved sammensætning:

- Kønsfordeling – der skal indgå mindst én kvindelig bedømmer i et bedømmelsesudvalg, medmindre der kan gives dispensation herfor efter et skøn om berettigelsen hertil.
- De to eksterne bedømmere må ikke komme fra samme institution.
- En adjungeret professor/lektor kan indgå som eksternt medlem.
- Professor/lektor emeritus og eksterne lektorer kan ikke indgå i et bedømmelsesudvalg medmindre særlige forhold gør sig gældende.
- Bedømmerne skal have faglige kundskaber indenfor stillingens fagområde.

Der tjekkes for inhabilitet efter ansøgningsfristens udløb. Der kontrolleres især for publikations-sammenfald samt evt. forhold mellem ph.d.-vejleder og ansøger. Det er bedømmelsesudvalgets

pligt at forholde sig til egen og andre medlemmers habilitet i et udvalg. Der henvises til "Regler for faglig bedømmelse af ansøgere ved besættelse af videnskabelige stillinger på Aalborg Universitet".

Vejledningen er lavet på baggrund af "Bedømmelsesregler på Aalborg Universitet", 1. september 2013.

ⁱ Det interne medlem kan udskiftes med en ekstern begrundet i behov for anden og større faglighed på området for stillingen.



AALBORG UNIVERSITET

**The Doctoral School of
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Niels Jernes Vej 10
9220 Aalborg Ø

Sagsbehandler:
Helen Kjerstein Kristensen
Telefon: 99 40 73 73
Email: hek@adm.aau.dk

Dato: 11-10-2016
Sagsnr.: 2016-561-00001

Referat af ph.d.-udvalgs møde 7-2016 mandag den 3. oktober 2016

1. Godkendelse af dagsorden

Dagsordenen blev godkendt.

2. Nedsættelse af bedømmelsesudvalg

- a) Vedr. cand.polyt. Christer Volks ph.d.-afhandling (ErhvervsPhD): "Modelling of perceptual characteristics into audio metrics", Institut for Elektroniske Systemer.
Bedømmelsesudvalget blev godkendt.
- b) Vedr. MBA Roslyn Laytons ph.d.-afhandling (ErhvervsPhD): "Network Neutrality: The Impact on Network Investment", Institut for Elektroniske Systemer.
Bedømmelsesudvalget blev godkendt.
- c) Vedr. cand.polyt. Neofytos Kaplanis ph.d.-afhandling: "Perception of reverberation in domestic and automotive environments – using sensory analysis", Institut for Elektroniske Systemer.
Formanden kan ikke godkendes på grund af publikationssammenfald med bivejleder. I denne forbindelse har det ikke noget at sige, at det ikke er forskning inden for samme område. Det er det forhold, at de er tæt forbundne, der er afgørende.
- d) Vedr. cand.polyt. Jovan Vargas ph.d.-afhandling: "Semantic Metadata for Supporting Exploratory OLAP", Institut for Datalogi.
Bedømmelsesudvalget blev godkendt.
- e) Vedr. cand.polyt. Hashim bin Mohamads ph.d.-afhandling: "A study on the impact of students' competencies in a PBL-Technical Vocational Education and Training", Institut for Planlægning.
Bedømmelsesudvalget blev godkendt.
- f) Vedr. cand.polyt. Erik Sikströms ph.d.-afhandling: "Investigations concerning the User Experience of Self-produced Sounds in Immersive Virtual Reality", Institut for Arkitektur og Medieteknologi.
Formanden kan ikke godkendes, da en meget stor andel af hans publikationer er sammen med hovedvejlederen. Instituttet bedes informeret om at afkrydse korrekt på listen over publikationssammenfald.
- g) Vedr. cand.polyt. Anja Marie Bundgaards ph.d.-afhandling: "Designing out waste", Institut for Planlægning.
Formanden oplyser i sit CV, at han er fælles om ph.d.-studerende Anja Bundgaard sammen med hovedvejleder. Der bedes fremsendt en redegørelse for dette. Derudover bedes komme en redegørelse for, at den ene eksterne bedømmer er på lektorniveau.



- h) Vedr. cand.scient. Huamin Rens ph.d.-afhandling: "Understanding Behaviours in Videos – From Feature Extraction to Sparse Representation and Deep Neural Networks for Classification", Institut for Arkitektur og Medieteknologi.
Formanden kan ikke godkendes på grund af for stort publikationssammenfald med hovedvejleder. Derudover bedes fremsendt en fuld publikationsliste (seneste 5 år) på begge de eksterne bedømmere.
- i) Vedr. cand.polyt. Bo Suns ph.d.-afhandling "Control of flywheel energy storage in electrical vehicle charging stations", Institut for Energiteknik.
Det findes ikke dokumenteret, at den ene eksterne bedømmer er på lektorniveau. Endvidere er publikationslisten tilsyneladende ikke opdateret.
- j) Vedr. cand.jur. Olga Kretovas ph.d.-afhandling "Legal and political challenges to ICT for development of the digital society in Ukraine", Institut for Elektroniske Systemer.
Formanden kan ikke godkendes pga. publikationssammenfald med bivejleder. Endvidere bedes instituttet sikre, at der fremadrettet fremsendes et retvisende CV på medlemmerne.

3. Meddelelser

TL: Der bliver to ph.d.-skoler i forbindelse med fakultetsdelingen. Der skal udpeges to nye ph.d.-skoleledere i denne forbindelse. Der skal også udpeges medlemmer til de nye ph.d.-udvalg.

4. Ph.d.-plan

Generelt er det opfattelsen i ph.d.-udvalget, at skabelonen for ph.d.-planen er god og ikke nødvendigvis behøver den helt store omskrivning. Endvidere er statusseminar netop indført med denne skabelon som grundlag. Der har været forslag om en skabelon for tidsplan, som alle skal bruge.
CLB: Selvom ensretning som regel er godt i denne slags dokumenter, skal man alligevel passe på, da nogle måske bruger deres egne IT-værktøjer til at lave tidsplaner, og hvis de bare kan kopiere det ind i ph.d.-planen, skal man måske ikke forhindre det. Man kunne måske i stedet forestille sig, at der skal være nogle minimumskrav til indhold, f.eks. hvor mange delopgaver, opdelingen på tid mv.
Der var forslag om, at tidsplanen gøres mere detaljeret i 11 måneders planen, f.eks. med maksimum tre måneders intervaller og ikke seks måneder som i 2 måneders planen. Endvidere kunne submission deadlines også inkluderes. RW laver udkast til en opstramning.

5. Deling af TEKNAT

Dette blev gennemgået under meddelelser.

6. Monitorering af ph.d.-kurser

Ph.d.-udvalget tog monitoreringen til efterretning. På et tidspunkt skal der kigges på evalueringsskemaerne i forbindelse med kurser.

7. Udpegnig af medlem af testgruppe ifm. PhD Manager

LBH og CLB vil gerne begge være testere. Derudover står RLC til rådighed, hvis der er behov for en ph.d.-studerende.

8. Nyt fra ph.d.-foreningen

Der er ikke modtaget nyt fra ph.d.-foreningen inden mødet.

9. Eventuelt

LSAR: Der er ved deadline kun modtaget to ansøgninger om at komme på Pep-Up kursus i Torino.



AALBORG UNIVERSITET

**The Doctoral School of
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Til stede:
John Rasmussen
Rasmus Waagepetersen
Claus Leth Bak
Lars Bo Henriksen
Maria Bredvig
Helen Kjerstein Kristensen (ref.)

Sagsbehandler:
Helen Kjerstein Kristensen
Telefon: 99 40 73 73
Email: hek@adm.aau.dk

Dato: 28-11-2016
Sagsnr.: 2016-561-00001

Ph.d.-udvalgsmøde 8-2016 onsdag den 16. november 2016

1. Godkendelse af dagsorden

Dagsordenen blev godkendt.

2. Nedsættelse af bedømmelsesudvalg

- a) Vedr. cand.scient. Jane Billestrups indleverede ph.d.-afhandling: "From System Centered to User Centered Development of Public Self-Service Applications", Institut for Datalogi.
Ph.d.-udvalget godkendte bedømmelsesudvalget.
- b) Vedr. cand.polyt. Fredrik Moltu Johnsens ph.d.-afhandling: "The Development of a Weighting Method for Use in Life Cycle Assessments of Amine Based Post-Combustion Carbon Capture and Storage (CCS) in the Arctic Region", Institut for Planlægning.
Ph.d.-udvalget godkendte bedømmelsesudvalget.
- c) Vedr. cand.pæd. Line Hesselvig Kroghs ph.d.-afhandling: "Vidensopbygning i det regionalt-kommunale sundhedsarbejde, med særlig fokus på ældres sundhedstilstande og brugerinddragelse", Institut for Planlægning.
Ph.d.-udvalget kunne ikke godkende de eksterne bedømmere, da de ikke opfylder kravet om, at man mindst skal være på lektorniveau.
- d) Vedr. cand.scient. Mohammad Rezwan Khans ph.d.-afhandling: "Thermal Management of Battery Systems in Electric Vehicle and Smart Grid Application", Institut for Energiteknik.
Ph.d.-udvalget godkendte bedømmelsesudvalget.
- e) Vedr. cand.polyt. Jun Bum Kwons ph.d.-afhandling: "Harmonic State Space (HSS) Modeling for Power Electronic Based Systems", Institut for Energiteknik.
Ph.d.-udvalget godkendte bedømmelsesudvalget.
- f) Vedr. cand.jur. Olga Kretovas ph.d.-afhandling: "Legal and Political Challenges to the ICT for Development of the Digital Society in Ukraine", Institut for Elektroniske Systemer. Ny formand.
Ph.d.-udvalget godkendte bedømmelsesudvalget.
- g) Vedr. cand.scient. Kjell Staffas' ph.d.-afhandling: "Students' (in-)ability to deep learning and conceptual understanding designing out waste", Institut for Planlægning.
Ph.d.-udvalget godkendte bedømmelsesudvalget.
- h) Vedr. cand.polyt. Anne Rønnings ph.d.-afhandling: "Analysis of the LCA Approach to Sustainable Building", Institut for Planlægning.
Ph.d.-udvalget kan ikke godkende den ene eksterne bedømmer, da det ikke fremgår af medsendte CV og publikationsliste, at vedkommende er forskningsaktiv.



- i) Vedr. cand.polyt. Tina Vestermann Olsens ph.d.-afhandling ”Timely Uses”, Institut for Arkitektur og Medieteknologi.
Ph.d.-udvalget godkendte bedømmelsesudvalget.
- j) Vedr. cand.mag. Karin Topsø Larsens ph.d.-afhandling: ”Spatial Paradoxes in the Provision of Vocational Education and Training”, Institut for Planlægning.
Ph.d.-udvalget godkendte bedømmelsesudvalget.
- k) Vedr. cand.scient.soc. Mette Hove Jacobsens ph.d.-afhandling: ”Sustainable Consumption and Significance of Social Interactions. Four articles on Similarities and Difference in Consumption Practices”, Statens Byggeforskningsinstitut.
Ph.d.-udvalget godkendte bedømmelsesudvalget.
- l) Vedr. cand.polyt. Anders Rhiger Hansens ph.d.-afhandling: ”Social Structures of Residential Heat Consumption in Denmark”, Statens Byggeforskningsinstitut.
Ph.d.-udvalget godkendte bedømmelsesudvalget. Dog bedes instituttet fremsende opdateret publikationsliste på den ene eksterne bedømmer til sagen.
- m) Vedr. cand.soc. Line Valdorff Madsens ph.d.-afhandling: ”Homely Comfort and Energy Consumption: Practices, Perceptions and Expectations”, Statens Byggeforskningsinstitut.
Ph.d.-udvalget godkendte bedømmelsesudvalget.
- n) Vedr. cand.polyt. Georgios Martakos’ ph.d.-afhandling: ”Enhanced Performance of Sandwich Structures by Improved Damage Tolerance”, Institut for Mekanik og Produktion.
Ph.d.-udvalget kan ikke godkende formanden pga. massivt publikationssammenfald med bivejledere.

3. Meddelelser

HEK orienterede på vegne af LSAR om det nyligt afholdte vejlederkursus ved Mirjam Godskesen. Deltagerne havde været meget aktive og engagerede på kurset, og de modtagne evalueringer var også rigtig gode.

4. Status på statusseminar

HEK orienterede på vegne af LSAR om de tilbagemeldinger, der er kommet indtil videre. Der har været forespørgsler om, hvorvidt der er timer til tiltaget. Det er der ikke, da der er tale om en intern bedømmer. Fra et institut har der været forespørgsel om, hvorvidt det var muligt at få tilsendt en reminder til de ph.d.-studerende 10 måneder efter studiestart. Det er blevet undersøgt, og der er pt. ikke en teknisk løsning på dette, men ph.d.-kontoret er altid behjælpelig med at trække lister over ph.d.-studerende, så institutterne på denne måde hjælpes med at holde styr på det. Desuden har der været spørgsmål om habilitet – kan man senere bruge opponenter som formand for bedømmelsesudvalget. Det er der ikke noget problem i, så længe der ikke er andre habilitetsproblemer. CLB fortalte herefter om proceduren på Energiteknik. Opponenten udpeges af CLB og godkendes af institutleder. Der er en sekretær, der har fået opgaven med at holde øje med det praktiske – hvem, hvad, hvornår osv. Der er overvejende taget godt imod tiltaget ude i miljøerne. Procedurebeskrivelsen skal også være på hjemmesiden.

5. Deling af TEKNAT

Der blev orienteret om tilbagemeldingerne på udmeldingen vedr. flytning til nyt fakultet, hvor engineering ikke indgår. Der har været henvendelser fra ph.d.-studerende, som er utilfredse med, at de ikke længere får en ph.d.-grad fra et engineering-fakultet.

6. Monitorering af ph.d.-kurser

Monitoreringen blev taget til efterretning. Programmet Civil Engineering har aflyst alle programkurser i år. Det skyldes delvist uheldige omstændigheder i forbindelse med flytning af laboratorier.



7. Revision af skabelon for ph.d.-plan

RW gennemgik ændringerne. Der er primært tale om omstrukturering. Punkt 2 er delt op, så en del heraf indgår i et nyt punkt 3. Derudover er en del af hjælpeteksten i forbindelse med 11 måneders planen sat op som vejledning til 2 måneders planen, fordi det også er relevant her. Der sendes kommentarer rundt i kredsen, og det afklares på mail. Herefter skal det på som punkt til mødet med de programansvarlige i december.

8. Næste workshop med ph.d.-udvalg og vejledere

Det blev besluttet, at næste workshop skal være på PLAN. Det er RW og JR, der tager med. Det foreslås, at det finder sted medio februar 2017.

9. Nyt fra ph.d.-foreningen

PAU og DELPHI afholder den 1. december en fælles ph.d.-dag. Der vil være fire præsentationer: 1. Consultancy services for PhD students at AAU ved lektor Thomas Arildsen, 2. Personal Management and leadership in the PhD research ved lektor Pia Bøgelund, 3. Writing high quality papers ved Andrew Fish og 4. Career directions after the PhD ved Karrierecentret.

10. Eventuelt

CLB ville gerne drøfte emnet selvplagiering. Han mener, at behandlingen af emnet har taget overhånd. Det er der opbakning til fra de andre medlemmer af ph.d.-udvalget. CLB vil gerne have, at ph.d.-udvalget kommer med et forslag til, hvordan man kan sammensætte en kappe på en fornuftig vis – også med brug af eget materiale.

JR har haft kontakt til VBN med hensyn til et automatisk system med henblik på tjek af publikations-sammenfald. VBN synes, det lyder som en god idé. De vil måske se på det på et tidspunkt. JR har bedt om at få en mere præcis udmelding.



AALBORG UNIVERSITET

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Dato: 22-12-2016
Sagsnr.: 2016-561-00001

Referat af ph.d.-udvalgsmøde 8-2016 onsdag den 7. december 2016 kl. 8.30

1. Godkendelse af dagsorden

Dagsordenen blev godkendt.

2. Nedsættelse af bedømmelsesudvalg

- a) Vedr. MBA Mushtaque Alis ph.d.-afhandling: "Mapping and understanding corporate social responsibility in technological based public companies in Pakistan, a case of Pakistan State Oil (Business Development section)", Institut for Planlægning.
Ph.d.-udvalget godkendte bedømmelsesudvalget.
- b) Vedr. cand.polyt. Lucas Chavarrias ph.d.-afhandling: "Mobility Management for Cellular Networks: From LTE Towards 5G", Institut for Elektroniske Systemer.
Den ene eksterne bedømmer har ingen publikationer siden 2013, og instituttet bedes derfor redigere for, at hun er forskningsaktiv og på lektorniveau.
- c) Vedr. cand.polyt. Maral Rahimis ph.d.-afhandling: "Control and prevention of ice formation on the surface of an aluminum alloy", Statens Byggeforskningsinstitut.
Ph.d.-udvalget godkendte bedømmelsesudvalget.
- d) Vedr. cand.scient. Jeppe Veirum Larsens ph.d.-afhandling: "Enabling hemiplegic people to play existing musical instruments through a hybrid assistive interface", Institut for Arkitektur og Medieteknologi.
Ph.d.-udvalget godkendte bedømmelsesudvalget.
- e) Vedr. cand.arch. Thomas Peter Dicksons ph.d.-afhandling: "Dansk design efter anden verdenskrig – Fra kunsthåndværk til strategisk design", Institut for Arkitektur og Medieteknologi.
Ph.d.-udvalget godkendte bedømmelsesudvalget.
- f) Vedr. cand.polyt. Rasmus Hansen Kirkegaards ph.d.-afhandling: "Identity and function of novel microbes in digesters", Institut for Kemi og Biovidenskab.
Ph.d.-udvalget godkendte bedømmelsesudvalget.
- g) Vedr. cand.scient. Sabiha Ghellals ph.d.-afhandling: "Ambiguous and Prescribed Experiences in a Fictional Universe: Introducing an Adaptable Modular Multimodal Experience Design Matrix", Institut for Arkitektur og Medieteknologi.
Ph.d.-udvalget godkendte bedømmelsesudvalget.
- h) Vedr. cand.polyt. Xin Zhaos ph.d.-afhandling: "Grid Support by Power Converters in Microgrids", Institut for Energiteknik.
Ph.d.-udvalget godkendte bedømmelsesudvalget.



- i) Vedr. cand.polyt. Nelson Leonardo Diaz Aldanas ph.d.-afhandling "Coordinated Control and Management of Distributed Battery-Based Energy Storage Systems for Islanded Microgrids", Institut for Energiteknik.
Ph.d.-udvalget godkendte bedømmelsesudvalget.
- j) Vedr. cand.scient. Hesam M. Rafsanjanis ph.d.-afhandling: "Probabilistic Modeling of Wind Turbine Drivetrain Components", Institut for Byggeri og Anlæg.
Ph.d.-udvalget godkendte bedømmelsesudvalget.
- k) Vedr. cand.polyt. Bijay Neupanes ph.d.-afhandling: "Predictive Data Analytics for Energy Flexibility", Institut for Datalogi.
Ph.d.-udvalget godkendte bedømmelsesudvalget.
- l) Vedr. cand.polyt. Emil Buskgaards ph.d.-afhandling: "The Dynamics of the User Effect on Electrically Small Antennas", Institut for Elektroniske Systemer.
Ph.d.-udvalget godkendte bedømmelsesudvalget.
- m) Vedr. cand.scient. Changwoo Yoons ph.d.-afhandling: "Small Scale Harmonic Power System Stability", Institut for Energiteknik.
Ph.d.-udvalget godkendte bedømmelsesudvalget.

3. Meddelelser

MAB orienterede om status på PhD Manager. Der testes i øjeblikket, og det ser fint ud. Det er forventningen, at udviklingen implementeres pr. 02.01.2017. LSAR orienterede om karriereundersøgelsen, som er igangsat sammen med Epinion. Der er både en dimittendundersøgelse og en aftagerundersøgelse. Begge undersøgelser forventes færdige før sommeren 2017.

4. Bemanding til introkurser 2017

Der var opbakning til at dele bemanningen på kurserne med de to andre ph.d.-udvalg. Ph.d.-kontoret forsøger at koordinere, og hvis medlemmerne ikke kan på de "tildelte" datoer, bytter de indbyrdes. OBS på at moodle skal kunne fungere om morgenen, så underviserne kan lægge materiale ind.

5. Dagsorden til mødet med de programansvarlige

Dagsordenen blev gennemgået. Aflysningen af alle kurser på programmet Civil Engineering blev drøftet. Hvad kan man stille op? Evt. inddrage de ph.d.-studerende mere i planlægningen, da to af kurserne er aflyst pga. for få tilmeldte. Torben Larsen programansvarlig har ansvaret - det kan drøftes med ham på mødet med de programansvarlige.

6. Deling af TEKNAT

- Orientering om nye medlemmer af ph.d.-udvalg
- Mødefrekvens. Bedømmelsesudvalg behandles også fremover på møderne, men der køres skriftlig høring omkring sommerferien og jul. 6 møder om året i hvert udvalg fremover. Koordinering af generelle kurser på tværs af de 3 ph.d.-skoler medfører, at udbuddet skal behandles på møde 2.
- Dette er LSARs sidste møde. Den nye områdeleder for Ph.d.-kontoret, Charlotte Holmberg vil deltage i møderne fremover.

7. Monitorering af ph.d.-kurser

Punktet blev gennemgået under punkt 5.

8. Nyt fra ph.d.-foreningen

Der var intet nyt.



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9. Eventuelt

LSAR oplyste, at Mirjam Godskesen afholder et kursus for erfarne vejledere den 29.03.17.
Endvidere oplyste LSAR, at Karrierecenteret afholder en konference for ph.d.-studerende, som overvejer, om de ønsker at fortsætte i et akademisk forløb.



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Til stede:

Christian S. Jensen (CSJ) (fra 9.30)
Rafael Wisniewski (RAF)
Lars Bo Henriksen (LBH)
Peter Axel Nielsen (PAN)
Mads Græsbøll Christensen (MGC)
Michael Kvist Svangren (MKS)
Charlotte Holmberg (CHO)
Helen K. Kristensen (HEK)
Maria Bredvig (MAB) (ref.)

Dato: 01-03-2017
Sagsnr.: 2017-561-00004

Referat af ph.d.-udvalgsmøde 1-2017 tirsdag den 14. februar 2017

1. Godkendelse af dagsorden

Dagsordenen blev godkendt. Herefter fulgte en kort præsentationsrunde. MAB orienterede om, at den ene ph.d.-studerende havde trukket sig fra udvalget. RAF forsøger at finde en ny ph.d.-studerende.

2. Konstituering af udvalget

Udvalget konstituerede sig med RAF som formand og MKS som næstformand.

3. Forretningsorden for udvalget

Udvalget vedtog at følge standardforretningsordenen.

4. Indsigelse mod bedømmelsesudvalg (LUKKET PUNKT)

Ph.d.-udvalget fastholdt indstillingen af bedømmelsesudvalget og det udsendte afgørelsesbrev.

5. Nedsættelse af bedømmelsesudvalg

- a) Vedr. cand.polyt. Esben Skov Laursens ph.d.-afhandling: "Exploring the Collaboration between Industrial Designers in a Handover Situation - Sharing the Product Concept's Underpinning Logic", Institut for Arkitektur og Medieteknologi.
Ph.d.-udvalget godkendte bedømmelsesudvalget.
- b) Vedr. cand.polyt. Jakob Zinck Thellufsens ph.d.-afhandling: "Energy System Analysis of Multiple Systems", Institut for Planlægning.
Ph.d.-udvalget kunne ikke godkende den ene af de eksterne bedømmere på grund af publikationssammenfald. Det bør være muligt at finde en ekstern bedømmer, som ikke har publikationssammenfald med hovedvejleder. Fremadrettet opfordres instituttet til at gå efter at finde en formand, som ikke har publikationssammenfald med hovedvejlederen.

6. Meddelelser

Der var ingen meddelelser.

7. Eventuelt:

CSJ: Der er udarbejdet en årsrapport for ph.d.-skolen på TEKNAT for 2016, og den skal samtidig skue fremad med fokuspunkter. CSJ vil gerne høre input hertil. CSJ mener, at vi skal konsolidere os, gøre tingene nemmere for hovedvejlederne og klare problemerne, der hvor de er, i stedet for at ramme alle.



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PAN: forespurgte til proceduren for introkurserne. MAB har fordelt kurserne på de nye medlemmer af ph.d.-udvalgene. PAN vil gerne være observatør på et kursus, inden han selv skal være kursusholder. CHO forespurgte, om der er tilsvarende kurser for vejledere. Det er der ikke, og der er meget forskel på, hvordan det håndteres på institutterne. Der udbydes kurser fra ph.d.-skolen, men det er ikke obligatorisk at deltage. Der var enighed om, at det er bedre at gribe ind overfor de få, der ikke kan finde ud af det i stedet for at opstille rigide regler, som rammer alle.

Det blev besluttet at slå ph.d.-udvalgsmøde og programansvarligmøder sammen tre gange om året, således at de andre programansvarlige deltager i første halvdel eller sidste halvdel af mødet.

MGC: Vil gerne høre om den nyligt udsendte mail vedr. udlandsophold kan fortolkes mindre rigtigt. Det er ikke i alle tilfælde hensigtsmæssigt for de ph.d.-studerende at tage på udlandsophold. Enten af faglige eller personlige årsager.



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Det Teknisk-Naturvidenskabelige Fakultet
Forskerskolen
Niels Jernes Vej 10

Dato: 15-02-2017

Vedr.: Indstilling til ph.d. grad "Ecodesign for a circular economy. Regulating and Designing Electrical and Electronic Equipment", Anja Marie Bundgaard, Institut for Planlægning

Hermed fremsendes bedømmelsesudvalgets Final Assessment vedr. ovennævnte ph.d. afhandling.

Instituttet anbefaler, at bedømmelsesudvalgets indstilling følges, og at Anja Marie Bundgaard tildes ph.d. graden.

Med venlig hilsen

A handwritten signature in black ink, appearing to read 'Marianne Sørensen', written over a horizontal line.

Marianne Sørensen

Assessment of the PhD thesis:

**“Ecodesign for a circular economy”
Regulating and Designing Electrical and Electronic Equipment**

Submitted by Anja Marie Bundgaard

The assessment committee consist of the following members as decided by the Dean of Engineering and Science by 18 October 2016.

Assistant Professor **Idil Gaziulusoy**
Alto University
Department of Design
School of Art, Design and Architecture
Hämeentie 135, Helsinki
Finland

Contract Agent **Fulvio Ardente**
European Commission – Joint Research Centre
Via Enrico Fermi 2749 – TP 270
I – 21027 Ispra (VA) – Italia

Associate Professor **Søren Kerndrup** (chairman)
Aalborg University
Department of Development and Planning
Skibbrogade 5
9000 Aalborg

Supervisors for the PhD thesis were:

Prof. Arne Remmen, Department of Development and Planning, Aalborg University
Assoc. Prof. Mette Mosgaard, Department of Development and Planning, Aalborg University

Brief description of the PhD thesis

The thesis examines how eco-design can close the material loops in circular economy specifically focusing on electrical and electronic equipment. Two research questions guide the inquiry: 1. How have the EU product policies covering electrical and electronic equipment integrated resource efficiency aspects and what is the role of Ecodesign Directive; 2. How to design electrical and electronic equipment for closed material loops in circular economy using eco-design and what barriers and drivers exist.

The thesis comprises of three opening chapters, which introduces the problem field and research questions, presents the conceptual framework and discusses research methodology, five chapters dedicated to exploring first research question and six chapters dedicated to exploring second research question, which are followed by overall conclusions. The chapters dealing with the first research question provides a thorough analysis of EU environmental product policies (legislation and voluntary instruments), the extent of resource efficiency coverage in these policies and how these can support integration of resource efficiency requirements into Ecodesign Directive. The analysis is carried out using qualitative methods including document analyses, interviews and two product groups as case studies. The chapters dealing with the second research question presented two case studies (Bang & Olufsen and Tier1 Asset) investigating the maturity level and mechanisms of integrating loop closing activities into the design of products. The thesis concludes with analysis of findings and recommendations.

1. Choice and Command of Topic, Execution of the Research, Contributions and Limitations

The topic of the thesis is relevant to the scientific field as well as to European industry and policymakers in the area of eco-design and product environmental performance. The topic is also timely in the sense that there is increasing interest within the EU about the potential of circular economy in achieving the much-needed and widely-studied transformations in production-consumption systems.

The research adopts an interesting and original multiple methodological approach in which different angles of the Circular Economy are investigated, including: the analysis of different policy processes; the tracing of opinions of policy makers and different stakeholders; the analysis 'on-field' of productive activities (by a manufacturer and reuse centre); and the attempt of generalizing some conclusions and recommendations based on these practical case-studies. This is a novel approach in its application to Circular Economy as well in its attempt of being comprehensive and critical. The approach gives the candidate possibilities for making interesting scientific contributions to our knowledge of how the relationships between the policy development process and the stakeholder involvement influence the construction of the eco design concept at EU level and our understanding of the limitations and possibilities of eco design concept from the perspective of how eco design is practiced in companies.

A limitation is the lack of discussion about the limits and uncertainty of the applied method, and how these limitations could be overcome by, for example, different approaches or additional future research. The novelty of the approach here proposed can be, in fact, also a weakness, since quantitative assessments are generally not present. This could undermine the robustness of the results, since these are based on interpreted opinions of certain stakeholders or general statements in the literature. One of the difficulties for the implementation of the Circular Economy is indeed the lack of consolidated results on different aspects. Even the generic opinion that durable products are better, can fail on some specific applications or, more generally, it depends on what aspects and system boundaries are effectively considered and assessed.

In the theoretical framework the candidate presents the roots of circular economy in different schools but does not provide a critical review. Similarly, she cites the definition of Ellen McArthur Foundation (i.e. "an industrial economy that is restorative by intention") and without reflecting on possible alternative practices of circular economy that may be associated to different meanings that can be derived from this definition, concludes that it is vague therefore not useful. (Then, later in the thesis on page 186, she cites a definition very similar to McArthur definition to back-up her arguments "a system that is designed to be restorative and regenerative".) She claims that she is critical of the idea of continuous economic growth but then eventually develops and adopts a definition with references to "progress" without explaining what she means by progress if not growth. The definition also reduces circular economy to closing the loops to minimise resource consumption, energy and environmental impact. This understanding is aligned with eco-efficiency and does not embody the wide implications of "intentionally restorative". It is of course possible (and desirable) to develop one's own definition of a concept and adopt a position across a spectrum of valid positions associated to that concept, however, neither the definition nor the position adopted is based on convincing and justified arguments. There is scope for critical reflection on different framings and, at the end of thesis, for critical self-reflection on how a deductive framing of circular economy could have influenced interpretation of findings and policy recommendations based on these findings.

In part one where European environmental product policies are reviewed and analysed with references to integration of resource recovery, the candidate demonstrates excellent analytical competence. The insights provided by the candidate about the synergies between different instruments and the recommendations she formulates constitute valuable contributions. In this part a journal article has been included, which is novel and interesting and to our knowledge one of the first examples of a study investigating the relationships between the policy development process and the stakeholder involvement

The second part of the thesis explores how companies can design for circular economy and is the most interesting part of the dissertation. The methodological decision-making is justified (using "extreme cases").

It is interesting how the case-studies, especially the one on B&O, highlighted the barrier on how ecodesign requirements could limit the freedom of the designers. On such extent, some manufacturers claim that the implementation of ecodesign should remain a voluntary practise and

a competitive advantage in the market. This aspect has been detected by the candidate and it could be part of future developments of the research, for example to what extent some ecodesign requirements are effectively limiting certain design solutions and designer's freedom, or either what could be the potential drawback of recommended ecodesign strategies (for example design for disassembly and miniaturisation in computers; avoiding BIOS password and computer security). Future research could also investigate to what extent the freedom of designers could be actually restricted in the name of the social interest

A draft journal article has been included in the second part of dissertation, which is original and also provocative, based on the analysis of luxury products and Circular Economy, and highlighting that some production of excellence can be an interesting source of possible strategies to improve the material efficiency of products. However, it is questionable if luxury products can be considered as "sustainable" in a general sense. What if the production of highly durable and repairable product would imply huge consumption of resources during the manufacturing and raw material extraction and production? This would require some quantitative assessments to check to what extent the strategies implemented by a company (e.g. B&O) allow real environmental benefits and resource savings in the product life-cycle. This can be a suggestion for a future exploration by the candidate.

Another critical point is the lack of a definition for "luxury product" as different people (and scholars) have different understandings of what accounts for luxury. In addition, the argument that luxury products are designed to last long, therefore they are decreasing chances of premature obsolescence is a bit simplistic given the multi-layered mechanisms behind obsolescence. In fact, majority of products - luxury or not - are discarded before their end-of-life, as obsolescence in our current production-consumption system is more driven by the dynamics of political-economy than decision-making during design. Nevertheless, the assumption that in circular economy products that are designed for durability get a better chance of remaining in circulation is a sound hypothesis, nevertheless we do not yet have the empirical evidence to prove or refute this hypothesis.

The design of a workshop to facilitate a knowledge exchange between the recyclers and B&O to develop design for recycling requirements is a very valuable part of the B&O case study. The workshop creates opportunities to observe the mutual learning process that took place between the company and the recyclers. The candidate provides excellent reflections on these observations, which would be very valuable for any company producing multi-component products. Same is valid for the recommendations that resulted from Tier1Asset case study.

The case studies also raise questions about the role of consumers in the ecodesign of products. It is very interesting how the candidate identified how a company (B&O) clearly downsized the relevance of environmental targets because of the low pressure of the clients. This aspect was however not systematically addressed in other parts of the research. It could have been interesting to collect opinion of users about various aspects in the dissertation, e.g. concerning the policy process, the case-study and the recommendations. Probably the key of the success for Ecodesign and circular economy stays in the 'win-win' situation, i.e. those that (as durability in certain products), can grant environmental benefits, cost saving for the user and the society, and still granting higher profits for manufacturers. This is also a potential suggestion for future exploring.

It could also have been interesting if the dissertation have included a discussion of how recently diffusing new manufacturing paradigm (micro-scale manufacturing) and emerging business models (collaborative consumption) would alter the dynamics behind drivers and barriers (e.g. availability of spare parts may not be a problem) of eco-design in companies and what considerations should be taken into account in policymaking now so that the policies do not become quickly redundant or irrelevant. This could be an interesting future research direction.

The last point relates to the generalisation of the conclusions concerning ecodesign. Good practises developed by pioneer companies (or implemented in voluntary schemes) generally revealed to be successful. On the other hand, the biggest challenge in their application to mandatory policies (e.g. Ecodesign Directive) is to find a common denominator for all the actors. The success of this generalisation largely depends on the type of product and the considered context. Moreover, the verification of certain ecodesign requirements can be very challenging. For example, the widely agreed Ecodesign concept of "easy to disassembly" of certain parts poses several problems for its implementation to policies: how could this "ease" of disassembly can be measured / verified? This verifiability issue has been already highlighted in the dissertation in various sections. However, probably there is not a single best approach but a multitude of solutions, among which to select the most agreed one. Therefore, the approach of this research in investigating the reason behind certain positions by stakeholders, and the attempt to find a common agreed vision, is interestingly novel and potentially successful and, to some extent, even more than the practical recommendation itself.

It would make it much clearer for the reader if theoretical contributions that this thesis is making into eco-design, environmental product policy making and circular economy has been separately articulated.

2. Quality of Thesis Language and Presentation

Overall the quality of language is good and the thesis is well presented. The quality of writing is high and overall the dissertation goes fluently, keeping high the attention of the reader and communicating well the method, the various steps of the research and the conclusions.

There are repetitions of literature findings and methodological considerations. This is somewhat difficult to easily avoid in by-publication PhD model, nevertheless perhaps a bit of work could be put in the structure of the thesis to reduce repetition.

3. Knowledge and Professional Skills

The candidate has also proven to have developed high level academic writing and consulting skills as demonstrated in chapters which are based on a commissioned reports and under-review journal publications.

4. Overall Assessment

Based on the pre-assessment the Committee agreed to have the oral defence on 19th of January 2017. The candidate presented her thesis in public. Following the presentation, the Committee has asked questions for elaboration, clarification and reflections on implications of her research. The candidate has tackled the complex problem of policy-making and in a newly emerging systemic area (circular economy). She also looked at the problem from the perspective of design practice of companies. The presented methodological framework was found to be sufficiently justified and well executed by the Committee. The argumentation in the thesis and in the oral defence was mature, well structured and the analysis was very thorough. The contributions of the research into environmental product policy making and eco-design practice in companies has been acknowledged as significant and novel. Based on the thesis as well as on the oral presentation and following discussion, the assessment Committee recommends the Academic Council at Aalborg University to reward Anja Marie Bundgaard with the PhD Degree.



Fulvio Ardente



Idil Gaziulusoy



Søren Kerndrup



AALBORG UNIVERSITET

Institut for Elektroniske Systemer
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Dato: 1. marts 2017

Til Forskerskolen
Att.: Lisbeth Diinhoff
N.J. 10

Vedrørende tildeling af ph.d.-grad til Burak Cakmak

Institut for Elektroniske Systemer indstiller at bedømmelsesudvalgets indstilling følges således at Burak Cakmak tildes ph.d.-graden for sin ph.d.-afhandling "Random Matrices for Information Processing - A Democratic Vision" d. 28.02.2017.

Professor Bernard Fleury har været hovedvejleder for Burak Cakmak.

Med venlig hilsen

A handwritten signature in black ink that reads "Børge Lindberg". The signature is written in a cursive style with a small flourish at the end.

Børge Lindberg

Instituttleder



AALBORG UNIVERSITY
DENMARK

Final Assessment

February 28, 2017

Final assessment of the PhD thesis entitled:

Random Matrices for Information Processing – A Democratic Vision

Submitted by Burak Cakmak.

The assessment committee consists of the following members as decided by the Dean of the Faculty of Engineering and Science on the date 28.06.2016:

Professor Tom Heskes
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(Chairman) Professor (MSO) Jan Østergaard
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Supervisor for the thesis has been Professor Bernard Henri Fleury, Department of Electronic Systems, Aalborg University, Denmark.

Description of the thesis

The thesis takes the form of a monograph with 124 pages that covers 6 chapters and 4 appendices. Chapter 1 introduces the reader to the thesis, and the main results are presented in chapters 2 – 5. Chapter 6 contains the conclusion of the thesis. Proofs for the results of the individual technical chapters are presented in Appendices A – D.

Assessment of the thesis

Overall, the thesis is very well written and organized. The research questions are well framed and the research design is clear and coherent. One weak aspect is that some of the research questions are not completely firmly grounded in the literature. An added bonus is the fact that the thesis is extremely well written. This made it a pleasure to read. Mr. Burak Cakmak clearly organizes the work into a meaningful progression of chapters. The introductory chapter provides important context for the reader. The separate literature review chapter (Chapter 2) covers the essential aspects of random matrix theory and free probability theory providing a sufficient overview of the well-known long-established tools and results of the above-mentioned disciplines, needed as



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background for the subsequent chapters. The next 3 separate chapters clearly document the three phases of the research. Finally the conclusion provides a useful summary of the results as well as a useful discussions for future research. Overall, the presentation of the thesis is good.

Chapter 1:

Chapter 1 starts describing a class of matrices, which is known in literature as unitary invariant matrices. Such random matrix model applies in general to a broad class of research problems. Among those ones the author underlines and describes 3 research problems, which are going to be the focus and the objective of his thesis: i) Capacity scaling in MIMO systems, ii) Self-averaging expectation propagation, and ii) Dynamical aspects of the TAP (Thoules-Andersen-Palmer) equations.

This chapter is an introductory chapter where a high-level overview of the main focus, objective and constructions of this thesis is provided. The chapter is very well written and this made it a pleasure to read.

Chapter 2 + Appendix A:

This chapter provides an overview of random matrix theory and free probability theory. After providing a description of the classical random matrix models studied in the literature, like: Haar, Wishart, Wigner and Jacobi matrices, the author describes in detail what is referred to as general invariant matrix ensemble which is going to be the main matrix model considered by the author in the subsequent chapters. The chapter also provides an overview of the main tools and transforms which are typically used to characterize the eigenvalue distributions of generic random matrices with special attention to the unitary invariant ones.

Again the chapter is very well written and organized. The chapter is an overview of established mathematical results with some nice original reformulations and derivations of connections between well-known transforms.

Chapter 3 + Appendix B:

In this chapter the author describes the first of his three original contributions in the context of MIMO communication systems. Specifically, after recalling the general ergodic Mutual Information (MI) expression of a MIMO system with several level of knowledge of the channel state information (CSI) at the receiver and at the transmitter, the author focuses on a setting where the receiver has perfect knowledge of the CSI while the transmitter has not even statistically knowledge of the CSI. In this setting the author focus on the asymptotic regime where the number of transmit and receive antennas go to infinity. Under this assumption the author investigates how the MI of a MIMO communication system scales as a function of the system dimensions. Starting from a misconception underlined and studied in [17] under the assumption of generally correlated Gaussian channels, the author extends the analysis done in [17] to the class of unitary invariant random matrices. He obtains an expression for the scaling laws of the MI that is not a function of the singular values of channel matrix but it only depends on the number of transmit and receive antennas. Furthermore, in this setting he also quantifies how the MI as a function of the system dimensions deviates from the assumed linear growth.

The chapter is very well written and organized. However, the research question investigated in this chapter is not completely firmly grounded in the literature. Even if the author starts and expands some of the results previously derived, he does not conform his exposition and his analysis to the well-established metrics and parameters making i) a bit difficult the connection of his results with the ones already known in literature and ii) less evident the originality of his derivation. In addition, while the derivation is an elegant mathematical exercise that adopts tools from free probability and random matrix theory showing the author's mastery of such tools, the novelty in terms of engineering insight is limited.



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Chapter 4 + Appendix C:

Chapter 4 describes a novel and original approach for approximate probabilistic and Bayesian inference in high-dimensional models. It extends expectation propagation, a popular and accurate general procedure for approximate inference. Expectation propagation typically requires computation of the inverse of the covariance matrix, which, in dense systems with many variables, can become computationally prohibitive. Making a self-averaging assumption, the fixed-point equations for expectation propagation are analyzed in the large-system limit. Making use of the random matrix theory introduced in earlier chapters, new fixed-point equations are obtained that are computationally much more efficient, since they no longer require the expensive matrix inverse. Numerical results on simulated data illustrate the effectiveness of the approach.

The work presented in this chapter is highly original. The writing is concise, but quite technical, and possibly too technical for most practitioners of expectation propagation. Here, it could also have helped to demonstrate self-averaging expectation propagation on real-world data, where the distribution of random matrices cannot be considered known, but must be estimated as well.

Chapter 5 + Appendix D:

Chapter 5 considers the well-known Ising model of statistical physics, with pairwise interactions between binary spin variables, and in particular the TAP equations, a set of self-consistent equations for the magnetizations of the spin variables. Solving the TAP equations is a challenge, in particular for large dense systems. Using dynamical function theory, an iterative procedure for solving the TAP equations is obtained, valid for identically (but not necessarily independently) distributed interactions strengths in the large-system limit. Random matrix theory yields specific suggestions for the update equations of the SK and the Hopfield model. Theoretical properties (consistency, stability) of the resulting fixed-point equations are analyzed in detail and simulations verify the correctness of the theory.

The chapter describes highly original work, putting algorithms derived earlier by others in an elegant, more general framework. The framework then also opens up ample opportunities for analyzing more general probabilistic models. All the intermediate steps are clearly explained and the obtained (theoretical) results are nicely illustrated through simulations.

Chapter 6:

The conclusion provides a useful summary of the results as well as interesting consideration and discussions.

Oral presentation and discussion

Date and place of the oral defence: 28.02.2017, Aalborg University.

In the oral presentation, the student gave a nice overview of his research result with a fine balance between the engineering insights and the mathematical details. In some parts of the presentation, the emphasis was mainly on the description of the mathematical tools, which gave the student the opportunity to demonstrate his expertise and skills.

In a lively discussion, the student answered most questions adequately, showing a clear passion for research and putting his own work in the broader context of the existing literature. Through his answers, he also managed to give more motivation for the approach taken in the thesis and explain some of the mathematics in more detail.



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Conclusions

The thesis contains novel contributions at a high technical level. The thesis is in general very well written albeit at certain places perhaps a bit too concisely written, which may make it hard for non-experts to appreciate the work. The results of the thesis have clear potential for applicability on real-world problems even though this is not demonstrated within the thesis, which restricts itself to illustrations on simulated data that exactly matches the assumptions underlying the theoretical analysis. During the presentation and discussion, it became clear that the student truly masters the research, was able to communicate his results also to a non-expert audience, and thought about how to apply his novel findings on practical problems.

The committee unanimously recommends that Burak Cakmak is awarded the PhD degree.

Professor Tom Heskes

Professor Antonia Tulino

Prof. (MSO) Jan Østergaard



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Dato: 18. januar 2017

**Til Forskerskolen
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Vedrørende tildeling af ph.d.-grad til Christer Peter Volk

Institut for Elektroniske Systemer indstiller at bedømmelsesudvalgets indstilling følges således at Christer Peter Volk tildeles ph.d.-graden for sin ph.d.-afhandling "Prediction of Perceptual Audio Reproduction Characteristics" d. 17.01.2017.

Professor Søren Bech har været hovedvejleder for Christer Peter Volk.

Med venlig hilsen

A handwritten signature in black ink that reads "Børge Lindberg". The signature is written in a cursive style with a distinct flourish at the end.

Børge Lindberg

Instituttleder



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Assessment of the PhD thesis entitled:

PREDICTION OF PERCEPTUAL AUDIO REPRODUCTION CHARACTERISTICS

Submitted by Christer Peter Volk, M.Eng. in Engineering Acoustics

The assessment committee consists of the following members as decided by the Dean of the Faculty of Engineering and Science by October 6, 2016:

- Member 1: Associate Professor Tapio Lokki, Aalto University School of Science, Department of Computer Science, Finland, E-mail: Tapio.Lokki@aalto.fi
- Member 2: Project Manager Lars Bramsløw, Eriksholm Research Centre, Oticon, Denmark, E-mail: labw@eriksholm.com
- Member 3 (chairman): Associate Professor Christian Sejer Pedersen, SIP, Department of Electronic Systems, Aalborg University, E-mail: cp@es.aau.dk

Supervisor for the thesis has been Professor Søren Bech, SIP, Department of Electronic Systems, Aalborg University.

Co-supervisor for the thesis has been Associate Professor Flemming Christensen, SIP, Department of Electronic Systems, Aalborg University.

Company supervisor for the thesis has been Torben Holm Pedersen, DELTA Senselab.

Description of the thesis

The thesis is in total 184 pages long (including front page, biography, abstracts in English and Danish, table of contents, thesis details, preface, acronyms & glossary, and back page) and is based on a collection of four papers (two conference papers and two submitted journal paper manuscripts) preceded by an extended summary consisting of the chapters: Introduction, Auditory processing, Perceptual evaluation, Modelling and validation, Summary of findings, Future work, Concluding remarks, and References. The thesis also contains an appendix titled: "Characterisation of acoustical environments: Physics and perception".

The following papers are included in the thesis:

- Paper A: C. P. Volk, S. Bech, T. H. Pedersen, and F. Christensen, "Five aspects of maximizing objectivity from perceptual evaluations of loudspeakers: A literature study" In Proc. of the Audio Engineering Society Convention 138. Warsaw, Poland: Audio Engineering Society, May 2015, pp. 1–12, Convention paper 9230 status (printed).
- Paper B: C. P. Volk, M. Lavandier, S. Bech, and F. Christensen, "Identifying the dominating perceptual differences in headphone reproduction" (Submitted to J. Acoust. Soc. Am., Feb. 2016).
- Paper C: C. P. Volk, T. H. Pedersen, S. Bech, and F. Christensen, "Modelling perceptual characteristics of prototype headphones" in Proc. of the AES International Conference on Headphone Technology, Aalborg, Denmark: Audio Engineering Society, Aug. 2016, pp. 1–9, Paper no. 5-2 (printed).
- Paper D: C. P. Volk, S. Bech, T. H. Pedersen, and F. Christensen, "Modelling perceptual characteristics of loudspeaker reproduction in a stereo setup" (Submitted to Journal of the Audio Engineering Society, Sep. 2016).



Assessment of the thesis

In the following a short review of each paper is presented.

Paper A is a literature study of loudspeaker evaluations aimed at providing the best "objective" data for modeling of perceptual data. This is important in order to get valid models. It lists the five aspects: the choice of perceptual attributes, the relevance of the perceptual attributes, the choice of loudness equalisation strategy, optimum listening room specifications, and in-situ listening on actual loudspeakers vs. binaural recording/reproduction of the loudspeakers.

The literature study is systematic and well structured and it highlights the important aspects to take into account before performing perceptual evaluations of loudspeakers. Timbre was found to be a dominating perceptual attribute, and loudness equalisation is important as loudness has been found to be a confounding factor. Different loudness equalisation strategies are discussed, but there is too much emphasis on individual differences in thresholds and loudness perception. Loudness models are briefly mentioned as not being perceptually satisfactory for complex music. However, different loudness models could have been discussed in more details as more recent binaural models for time-varying sounds may be adequate for this application (In paper C a stationary monaural loudness model is used). The section on the importance of the listening room is very good and contains a nice summarizing table of reverberation time in domestic rooms (Table A.1). The conclusion that binaural recordings of loudspeakers in a listening room (indirect listening) would be a good choice fails to acknowledge that movement of the listeners, e.g. turning the head. This fact would lead to unnatural spatial impression for the listener, as the whole auditory scene would move with the head turn. Headtracking and proper binaural rendering could improve on the situation, but would require many binaural measurements, i.e., binaural room scanning for each loudspeaker setup.

The paper does not as such add new knowledge, but it fits well into the thesis as a mandatory first step before carrying out the perceptual evaluation studies, and it contains a good list of references.

Paper B presents a study of perceptual differences between 21 headphones using a paired comparison method with dissimilarity ratings. Binaural recordings of each headphone of two musical excerpts were used, and a paired comparison experiment with 15 naïve test subjects were made for each musical excerpt (eight test subjects from the first experiment participated in the second). A metric multidimensional scaling of the dissimilarity results revealed two main dimensions. These were interpreted (by two expert listeners) as relative strength of bass and the other was relative strength of the lower midrange. Metrics based on the relative specific loudness for specific frequency ranges calculated from the time-varying Glasberg-Moore loudness model were found to correlate well with the two dimensions.

Overall the paper is systematic and well documented with clear results. It would have been nice to see some analysis of a third dimension as qualitative data from the study suggests that there were more perceptual differences than the two main dimensions. However, the paper hints that it may have been "buried" in noise, which could be the case if there was not consensus between all test subjects. The number of test subjects was determined by monitoring the changes in average differences in the dissimilarity data after each test subject, and stopped when it was deemed stable. It must be mentioned that this is a controversial approach as it to some degree violates the assumption of random sampling, which is one of the fundamental assumptions in inferential statistics.

In summary, the paper is a nice piece of research for finding the dominant descriptors and modeling them.



Paper C presents a study of a framework for modelling perceptual attributes that differentiate different headphones. Binaural recordings of seven prototype headphones were used as stimuli and six predefined descriptors were included in a perceptual study using 18 expert listeners. The data were carefully examined in order to ensure high quality data for modeling purposes. This involved excluding subject data, where it conflicted with the average consensus of the expert listeners (using eGauge and Tucker-1 plots). However, we would have liked some more evidence to support the exclusion of subject data. In addition, eGauge and Tucker-1 plots could have been explained briefly. The results are quite clear for all used attributes, except "Punch", which may be hard to define. However, four attributes had very high correlation, which may indicate that they measure the same underlying perceptual feature. Metrics were developed for five descriptors using the Zwicker stationary loudness model to calculate the specific loudness relation between different frequency ranges. In general the paper presents a sound modelling approach and the main contribution is the modelling of perceptual attributes related to timbre, with results that correlate well with the perceptual data.

Paper D continues the studies of Paper C, but this time for a stereo setup of compact loudspeakers in a room. A combination of corner placements and two loudspeaker spinners allows for evaluating 7 loudspeakers in each of the two sessions. The three loudspeakers in the corners were the same for both sessions, so a total of 11 loudspeakers were evaluated on six perceptual attributes. Using the time-varying Glasberg-Moore loudness model four measures were developed in a similar manner as in paper B and C. However, what is new in the modelling scheme is that the measures were trained on a subset of 2/3 of the data and validated on the remaining data. In addition, a logistic model was also fitted to account for floor and ceiling effects of the scale. However, we miss a discussion on how much this improves the fit over the linear model. The developed metrics showed high correlation with the validation dataset. The use of loudspeaker spinners that allowed the placement of loudspeakers at the exact same position in the room is quite ingenious, and important for getting comparable evaluations of different loudspeakers. It is less clear what the advantage of the corner placement provide.

In summary, the paper has a good description of the listening test, the modeling, and the resulting quality of the metrics.

Extended summary

The extended summary presents a clear goal of the research and provides a nice overview of the perceptual evaluation of audio systems. It refers well to previous research in the field with solid references and presents the findings and the current state of the art. It goes beyond what is presented in each paper and as such provides additional content and discussions, for example giving an overview of the Glasberg-Moore loudness model and discussing the influence of the music type (presented in Figure 9).

The extended summary does suffer from some unfinished references to page numbers and some typos that sometimes distract the reader. More figures, tables and graphs would have made the overview report easier to read. Also, the structure could have been better – the summary must be read a few times to grasp the entire project. The four papers, on the other hand, have good structure and are well written.

The methodology used in the thesis is for the most part solid and together with carefully planned and executed perceptual experiments the quality of the obtained data and fitted models are high. This high quality provides very good correlation between developed metrics and the perceptual data. There are clear links between the extended summary and the papers, e.g. in Table 2, a nice overview of all developed metrics and to which study they belong is provided.



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The complete thesis covers very relevant aspects of perceptual assessments for loudspeakers and headphones and a number of prediction models for the most important attributes have been developed and validated. The scope of the project is ambitious and covers a difficult topic where little previous work has been done. Regarding the modeling approach, it is very much the same – using a specific loudness model followed by weighted sums of those outputs. For curiosity, it would have been interesting to try at least one other modeling approach, e.g. just spectra and/or neural networks. Just to get an indication for sanity of the basic modeling choice.

Overall the research results bring novel information and the quality is good.

Oral presentation and discussion

Date and place of the oral defence: 17/1-2017, Aalborg

The presentation gave a clear overview of the thesis and the project. Key topics were covered, but for instance some details on the loudness model could have been omitted from the presentation. The major scientific contribution was not highlighted clearly, but became evident during the discussion. In the discussion the candidate demonstrated detailed insight in all aspects of the PhD study. He showed very thorough understanding of the research field and provided more details than written in the thesis. This gave further support for the choices made and knowledge on strengths and weaknesses of the work. Furthermore, the candidate was able to view his work from a broader perspective, which is very relevant for his future career.

Conclusions

The committee unanimously recommends that Christer Peter Volk is awarded the PhD degree.

17/01-2017

Tapio Lokki

Lars Bramsløw

Christian Sejer Pedersen



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Dato: 13. marts 2017

Vedrørende tildeling af ph.d.-grad til Emil Feldborg Buskgaard

Institut for Elektroniske Systemer indstiller at bedømmelsesudvalgets indstilling følges således at Emil Feldborg Buskgaard tildeles ph.d.-graden for sin ph.d.-afhandling "THE DYNAMICS OF THE USER EFFECT ON ELECTRICALLY SMALL ANTENNAS" d. 10.03.2017.

Professor Gert F. Pedersen har været hovedvejleder for Emil Feldborg Buskgaard.

Med venlig hilsen

A handwritten signature in black ink that reads "Børge Lindberg". The signature is written in a cursive style with a small flourish at the end.

Børge Lindberg
Institutleder



AALBORG, FEBRUARY 17, 2017

March 10, 2017

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Assessment of the PhD thesis entitled:

"The Dynamics of the User Effect on Electrically Small Antennas"

Submitted by Emil Feldborg Buskgaard.

The assessment committee consists of the following members as decided by the Dean of the Faculty of Engineering and Science by December 20th, 2016:

- Professor Buon Kiong Lau, Lund University, Sweden. E-mail: buon_kiong.lau@eit.lth.se
- Associate Professor Ville Viikari, Aalto University, Finland. E-mail: ville.viikari@aalto.fi
- Associate Professor, Jan Hvolgaard Mikkelsen, Aalborg University, Denmark (Chairman). E-mail: jhm@es.aau.dk

Supervisor for the thesis work has been Professor Gert Frølund Pedersen, Aalborg University

Co-supervisor has been Associate Professor Ondrej Franek, Aalborg University.

Description of the thesis

Emil Feldborg Buskgaard's Ph.D. thesis, entitled "The Dynamics of the User Effect on Electrically Small Antennas", as submitted during November 2016, consists of a short 20-page introduction summarizing findings presented in five manuscripts [A] - [E], that form the main body of the thesis. Two of these are journal manuscripts, of which one is published and the other submitted. The remaining three manuscripts are published as conference papers. Emil Feldborg Buskgaard is main author of all five papers and co-author statements are supplied for all five manuscripts. Details of the manuscripts are as follows:

[A] Emil Feldborg Buskgaard, Alexandru Tatomirescu, Samantha Caporal Del Barrio, Pevand Bahramzy, Ondrej Franek, Gert Frølund Pedersen, "Simple front-end concept for the complex challenges of multi-band communications," *The 9th European Conference on Antennas and Propagation (EuCAP)*, pp. 1 - 5, 2015. [Printed]

[B] Emil Feldborg Buskgaard, Alexandru Tatomirescu, Samantha Caporal Del Barrio, Ondrej Franek, Gert Frølund Pedersen, "User effect on the MIMO performance of a dual antenna LTE handset," *The 8th European Conference on Antennas and Propagation (EuCAP)*, pp. 2006 - 2009, 2014. [Printed]

[C] Emil Feldborg Buskgaard, Alexandru Tatomirescu, Samantha Caporal Del Barrio, Ondrej Franek, Gert Frølund Pedersen, "Effect of antenna bandwidth and placement on the

robustness to user interaction," *International Workshop on Antenna Technology: "Small Antennas, Novel EM Structures and Materials, and Applications" (iWAT)*, pp. 258 - 261, 2014. [Printed]

[D] Emil Feldborg Buskgaard, Ben K. Krøyer, Alexandru Tatomirescu, Ondrej Franek, Gert Frølund Pedersen, "Tiny Integrated Network Analyzer for noninvasive measurements of electrically small antennas," *IEEE Transactions on Microwave Theory and Techniques*, Volume: 64, Issue: 1, pp. 279 - 288, 2016. [Printed]

[E] Emil Feldborg Buskgaard, Ben K. Krøyer, Ondrej Franek, Gert Frølund Pedersen, "Large-scale experimental study of the user effect on live mobile phones," *IEEE Transactions on Antenna and Propagation*, 2016. [Raw manuscript]

The main topic of the Ph.D. thesis is dynamic user effects, i.e. how the user of a mobile device affects the performance of the antennas of said device. This is a particularly relevant topic as antennas are critical parts defining the achievable data rate, radio frequency power consumption and coverage in any wireless communications system. Designing efficient antennas for mobile devices necessitate a good understanding of the user effect. Articles [B] - [E] included in this dissertation are all related to this topic area.

The investigations are conducted within the framework of Aalborg University's Smart Antenna Front End (SAFE) project, funded by Innovation Fund Denmark. The SAFE project proposes the use of a special type of high-Q reconfigurable/tunable antennas in compact terminal devices for the so-called duplexer-less front-end technology. With this technology, the transmitting and receiving antennas are designed to provide relatively small instantaneous bandwidths that cover the pre-defined physical channel bandwidths (e.g., 10 MHz), and rely on frequency tunability to meet the bandwidth requirements (i.e., intra- and multi-band). One critical aspect of this technology is its performance in real-life conditions, which include the close proximity of the user to the antennas. User effect is known to cause significant performance degradations in excess of 10 dB in conventional terminal antennas. The user effect is mainly treated in a static manner in the public scientific literature. Antennas of mobile devices are often designed for certain static, standardized use cases. This is in particular so, because the specific absorption rate (SAR) is evaluated in these standardized cases. However, users do not hold the devices in standardized manners and therefore it is important to understand the real use cases. Instead of being still, users move and the environment of the mobile device changes in time, i.e., dynamically. The existing framework, based on static user models to study user effect, is not well suited for tunable antennas, such as those proposed for the SAFE project.

In the context of user effect study, the general objective of the thesis is to develop tools and methods to measure and predict the dynamic user effect. To reach the general objective, six sub-goals are set for the dissertation. These are; 1) develop a simple and flexible simulation model, 2) investigate the dynamic user effect versus antenna quality factor, 3) investigate the dynamic user effect on MIMO systems, 4) develop a measurement system for dynamic user effect investigations, 5) measure dynamic user effect on electrically small antennas and 6) measure the dynamic user effect on MIMO performance. The selected sub-goals are very relevant and support the general goal of the dissertation well. Topic wise the thesis considers two practically interesting and important topics: 1) The modeling of non-static user hand model with movable index finger which facilitates subsequent studies on user effect on the performance of high-Q vs. conventional antenna systems (Papers [A] – [C]); and 2) the development of an antenna measurement system that can be seamlessly integrated in terminals in order to provide reliable and statistically significant study of non-static user-antenna interaction (Paper [D]). The usefulness of the system is demonstrated through a large measurement

campaign involving 100 test subjects, each performing a variety of tasks, yielding valuable information such as the extent to which the antennas are affected under normal usage as well as the maximum rate of change of antenna parameters due to user effect (Paper [E]). As such, this thesis work is primarily practical involving user modeling, numerical calculations with commercial simulation software, design, experimental design and testing, as well as analysis of large quantities of results.

Assesment of the thesis

The single-chapter introduction briefly describes the background and purpose of the Ph.D. thesis (Sections 1 and 2), briefly reviews the state of the art (Section 3) and discusses the contributions and conclusions of the thesis (Sections 4 and 5). Overall, the Introduction is written in good English and easy to follow, and it provides a reasonable overview of the thesis topic. The references are generally of very good quality and they shed light on all topics relevant to this dissertation. The literature review presented in the summary part of the dissertation is relatively compact, but is complemented with those presented in the articles included in the dissertation. The research performed is nicely positioned in a larger framework indicating that the candidate understands well how this research relates to other technological and scientific efforts.

The dissertation represents a coherent entity with an average quality in comparison to other dissertations in the field. The dissertation has well managed to answer to the set research questions and the conclusions are derived in a justified manner from the obtained research results. The work is technically flawless and consistent.

However, the structure and the logical flow of the introduction could be improved. For example, even though studies relating to human exposure to electromagnetic radiation (as quantified by SAR) provides the inspiration in the modeling of user, it is fundamentally a different research topic, since exposure studies is concern with the tissue heating from antenna radiation, rather than the effect of tissue (user) on the performance of the antenna system. Therefore, the prominence and coverage given to the topic (e.g., Section 3.1) seems unjustified. As another example, the primary motivation of the thesis work is to support the development of frequency tunable antennas within the SAFE project, wherein a detailed study on user effect will enable a more reliable and robust antenna system implementation (i.e., the research question). However, the emphasis on test methods (including SAR and OTA) in the initial parts of the Introduction gives the wrong impression that the thesis is about compliance tests involving system-level parameters rather than only antenna parameters used for the development of tuning systems. Therefore, while the Introduction contains the correct information, the structure could be reorganized to improve its clarity. Regarding the English writing, some spelling errors (e.g., guage instead of gauge, Ovet-the-Air instead of Over-the-Air), incorrect section references (e.g., Sections 1.2 and 1.3 instead of 3.2 and 3.3) and awkward expressions (e.g., "The ability to tune the antenna to the frequency of interrest means that the antenna designer can make smaller antennas that efficiently cover more bandwidth than non-tunable antennas can do." Section 1.4).

Another observation is that the Introduction is rather short comparing with most Introductions of compilation theses, including those from Aalborg University. As a consequence, it is also somewhat rudimentary and qualitative, and it lacks details that could have increased its value. For example, many nonobvious statements and claims are made without any reference to the source. This could be seen in the second paragraph of Section 1, "Much is being done to improve the efficiency of the base stations..." In general, the literature review could be expanded to cover the relevant subject areas more extensively. For example, the extent of user effect as summarized in Section 1.1 is very short and only refers to the work done by Aalborg University and Aalto University since 1998, even though there are important works on this subject prior to 1998 at Aalborg University (e.g., work by

Jorn Toftgård et al. in *IEEE Transactions on Antennas and Propagation*, 1993) and elsewhere (e.g. Koichi Ogawa et al., Michael A. Jensen et al.). Similar problem could be seen in the overview sections of MIMO and tunable antennas (Sections 1.3 and 1.4), where the pioneering works and basic concepts are lacking in the description. Another point relating to the brevity of the Introduction is that it consists only of words; there is no graph, illustration or table that could provide a very good overview of the key ideas and concepts in the thesis. Seeing that the thesis work is carried out within the framework of SAFE, it would have been appropriate to clearly indicate how the present work has contributed to the so-called duplexer-less front-end architecture. In addition, the list of references contains several inconsistencies and a list of acronyms would be appropriate. It would have added greatly to the value of the thesis that the Introduction would be more comprehensive and in more detailed relate, summarize, and highlight the many achievements found in the manuscripts. It is also a common expectation for the Introduction to provide wider perspectives and additional insights based on the achieved results of the individual papers, including critically reviewing the body of work, making the thesis a valuable contribution in its own right.

Assesment of publications

The dissertation is based on a collection of five papers in total. The first three papers included in the dissertation rely mostly on electromagnetic simulations whereas the latter two supplement the simulations by extensive experiments. The selection of these research methods is very well justified and they provide answers to the selected research questions in a labor-efficient way. The influence of antenna quality factor on the user effect is best studied by simulations, whereas dynamic user effects in real use-cases necessitate experiments. The dissertation demonstrates that the chosen research methods are applied skillfully.

The candidate's contributions as the (first) author are very clearly specified in the co-author statements, according to which, the author has made the major contribution to each of the papers included in this dissertation. The author's contribution varies from collecting information from co-authors, creating a synthesis and presenting it in writing to generating the research idea, planning the experiments, performing the experiments and analyzing the results. The claimed major contribution is verified by the fact that the candidate is the first author in every publication included in the thesis. It is obvious that there are other authors as the work is done in a large research group in collaboration with researchers from other institutions.

The five papers included in the thesis are briefly assessed in the following:

[A] Emil Feldborg Buskgaard, Alexandru Tatomirescu, Samantha Caporal Del Barrio, Pevand Bahramzy, Ondrej Franek, Gert Frølund Pedersen, "Simple front-end concept for the complex challenges of multi-band communications," *The 9th European Conference on Antennas and Propagation (EuCAP)*, pp. 1 - 5, 2015. [Printed]

- This work, which serves as an overview paper, provides the context for the user effect study by providing an overview of the new front-end technology championed by the SAFE project. The proposed front end utilizes frequency tunable transmit and receive filters and tunable transmit and receive antennas. The RF front end, together with antennas, provide transmit-receive isolation in the order of 50 dB, which is comparable to that of currently used, fixed solutions. The proposed radio frequency front end architecture enables to reduce the number of parallel transmit and receive chains considerably thus making the radio frequency front end less complex. As mentioned earlier, it is important to include user effect study in the SAFE project to ensure reliable antenna implementation. However, since the overview paper does not touch

upon the topic of user effect, it does not seem to be directly relevant as an included paper. Instead, relevant aspects of the paper could be included in the Introduction to motivate the need for the thesis work.

[B] Emil Feldborg Buskgaard, Alexandru Tatomirescu, Samantha Caporal Del Barrio, Ondrej Franek, Gert Frølund Pedersen, "User effect on the MIMO performance of a dual antenna LTE handset," *The 8th European Conference on Antennas and Propagation (EuCAP)*, pp. 2006 - 2009, 2014. [Printed]

- This work is the first attempt to study non-static user effect on the MIMO performance of a conventional, non-tunable dual-antenna mobile phone, with the diversity antenna covering only the downlink band. The studied antenna system consists of a main antenna and a diversity antenna, which are weakly coupled to each other in free space condition. The article studies by simulations how the antenna performance is affected by different grip positions of the user. The simulation study models a non-static user hand (based on a CTIA phantom hand) with 6 different positions of the index fingers at the top part of the phone chassis. Consistent to earlier studies on the low-band, the correlation decreases with the user hand. Moreover, it is found that the position of the index finger has significant effect on the impedance matching, especially for the narrowband diversity antenna, which is completely detuned when the hand is present. Importantly, the variation in the antenna performance with different index finger positions can provide information for the design of adaptive matching to compensate for user effect. Whereas the paper does not contain any significant new insight, it provides a simulation framework for studying non-static user effect.

[C] Emil Feldborg Buskgaard, Alexandru Tatomirescu, Samantha Caporal Del Barrio, Ondrej Franek, Gert Frølund Pedersen, "Effect of antenna bandwidth and placement on the robustness to user interaction," *International Workshop on Antenna Technology: "Small Antennas, Novel EM Structures and Materials, and Applications" (iWAT)*, pp. 258 - 261, 2014. [Printed]

- Based entirely on electromagnetic simulations this article studies how a users different grip positions and head affects the performance of two different antenna structures; 1) a tunable narrow band (NB) antenna, and 2) a fixed wide band (WB) antenna. The results provide useful input into the range of detuning (and hence adaptive matching gain) that can result from the varying finger position. It is found out that the user effect is comparable for both antenna types being a bit more severe for the WB antenna. The WB antenna is detuned slightly more due to the user than the NB antenna. The largest loss is found out to be due to absorption, but 0.5 - 4.5 dB could be gained by retuning the antennas, depending on the grip and antenna type. Although the study shows the surprising result that the WB antenna is more susceptible to user-induced performance degradation, further investigations are suggested due to potentially different radiation mechanisms behind the NB and WB antennas.

[D] Emil Feldborg Buskgaard, Ben K. Krøyer, Alexandru Tatomirescu, Ondrej Franek, Gert Frølund Pedersen, "Tiny Integrated Network Analyzer for noninvasive measurements of electrically small antennas," *IEEE Transactions on Microwave Theory and Techniques*, Volume: 64, Issue: 1, pp. 279 - 288, 2016. [Printed]

- As a significant step towards a more rigorous and scientific approach to user effect study, this work provides the proof of concept design of a miniaturized vector network analyzer (VNA), named Tiny Integrated Network Analyzer (TINA), which can be fully integrated into existing mobile terminals to capture time-varying scattering parameters of dual-antennas. Generally known antenna test methods necessitate some kind of cable connection to the mobile device. The cable connection potentially alters the properties of the antenna and may thus falsify the measurement results. TINA provides a convenient and accurate way to measure the variation of user effect since no external cable (RF or optical) is needed. An advantage of TINA is that it can be embedded in the mobile devices without additional cables. The use of TINA is demonstrated with a real, partly disassembled mobile phone, in which it is integrated. Although TINA provides only moderate measurement accuracies, it should be sufficient for the purpose of user effect study.

[E] Emil Feldborg Buskgaard, Ben K. Krøyer, Ondrej Franek, Gert Frølund Pedersen, "Large-scale experimental study of the user effect on live mobile phones," *IEEE Transactions on Antenna and Propagation*, 2016. [Raw manuscript]

- In this work the tiny integrated network analyzer presented in [D] is used in a large measurement campaign to obtain the time variation of S-parameters (in iPhone 5s) for 100 test subjects, who were asked to performed a list of tasks that provides a variety of user interaction events. This is done to study the specific dynamics of the user effect on mobile phone antennas. The S-parameters of the system of main and diversity antenna are measured in real time in a realistic use case. Initial analysis of the results shows some expected large variations in the impedance matching, across users and events, as well as the maximum rate of variation that could provide useful input for adaptive matching design. The main findings are that a) the coupling between the main and diversity antenna is always very low, b) the reflection coefficient is often relatively high, c) the low band matching is much worse than that of the high band, d) matching worsens with the decreasing power level, and e) there is a noticeable difference between male and female test subjects. The unexpected result of very low coupling (median value of below -30 dB) could benefit from further investigations, especially considering the much higher values of around -10 dB observed in Paper [D] (for iPhone 5). Although the initial conclusions are few, it is believed that the large amount of data collected for the campaign could be further processed to yield other interesting results. For example, modeling of the observed non-static user interactions using 3D user models will be very useful for the design of tunable antenna systems.

The articles included in this dissertation are generally very coherent with each other in that the main topic is the dynamic user effect. This topic is highly relevant, seeing that antennas are critical parts affecting the achievable data rate and power consumption of a wireless communications system. All the articles are original and study the user effect in novel ways and from new directions. For instance, the tiny integrated network analyzer enabled the author to study the user effect in real use cases.

Three articles are presented in conferences, one is published in the best journal in the field of microwave engineering, and the last has been submitted to the best journal in the field of antennas. The conference papers exceed the average paper quality commonly presented in these, peer-reviewed conferences. The two journals have very rigorous review and the accepted paper demonstrates that the results obtained are of very high quality. The results of the last paper, which was a draft when this dissertation was submitted for review, are very interesting to the scientific community and it is believed that the article will eventually be accepted for publication. In our opinion

these articles present adequate amount of novel results on the same topic area and they suffice for a doctoral dissertation.

Oral presentation and discussion

During his 45 minutes presentation Emil gave a good and well-prepared overview of the thesis work and described in a logical manner the progression of the technical-scientific work. Following his presentation Emil was subject to a 100-minute oral examination, during which he demonstrated his competence on the subject. Emil generally provided clear and satisfactory answers to the many and diverse questions and was able to argue for and discuss details of the work. The committee agrees that overall Emil did well during the oral defense.

Conclusions

This dissertation focuses on an unexplored area of dynamic effect of the user on the mobile device antennas. The dissertation is based on a collection of five research articles on the same topic area, the combination forms a logical entity, and the author's contribution is explained and it is obviously significant. Overall, Emil Feldborg Buskgaard's thesis represents a fair effort to extend the scientific frontier of user effect studies, by providing simulation and measurement tools, techniques and results to address the challenging and realistic case of non-static user. More effort on for instance reorganization of some material, proof reading and unification of referencing style could go into improving the Introduction before the final printing, in order for it to provide a more comprehensive treatment of non-static user effect.

Furthermore, it should be noted that the thesis work goes beyond traditional antenna aspects, as it requires specialized skills from a variety of disciplines including mathematical modeling of 3D objects, development of microwave circuit/system, and statistical/behavioral analysis using large quantities of data. As such, the production of this thesis must have required a tremendous amount of effort, and it is undoubtedly very useful for the industry-university cooperation that has been the framework for this Ph.D. project. The two journal papers (Papers D and E) represent a growing maturity in handling the subject area, and the acceptance and publication of Paper D establishes the novelty and significance of the unconventional approach taken to obtain high-quality results that were never before attempted. Therefore, it is important to stress that the candidate, with his thesis, demonstrates that he is very well acquainted with his research area and that he masters the common theoretical frameworks and research methods in the field - and that the technical-scientific level of the work undoubtedly is high.

Based on the assessment of the thesis and on today's oral defense, the assessment committee unanimously recommends that Emil Feldborg Buskgaard be awarded the degree of Doctor of Philosophy.

Best regards,

Prof. Buon Kiöng Lau,
Lund University,
Sweden

Assoc. Prof. Ville Viikari,
Aalto University,
Finland

Assoc. Prof. Jan H. Mikkelsen
Aalborg University,
Denmark

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Ph.d.- forsvar Jovan Varga,

Vedlagt fremsendes underskrevet indstilling for Jovan Varga, som forsvarede sin ph.d. afhandling den 24. januar 2017 i Barcelona – Erasmus Mundus ph.d. studerende.

Med venlig hilsen,



Helle Schroll



Final Assessment of the PhD thesis entitled:

Semantic Metadata for Supporting Exploratory OLAP

Submitted by **Jovan Varga, M.Sc. in Computer Science**

The assessment committee consists of the following members as decided by the Dean of the Faculty of Engineering and Science by 28-10-2016 date:

- Professor Stefano Rizzi, Università di Bologna, Italy, stefano.rizzi@unibo.it
- Associate Professor Robert Wrembel, Poznan University of Technology, Poland, Robert.Wrembel@cs.put.poznan.pl
- Associate Professor Peter Dolog (chairman), Aalborg University, Denmark, dolog@cs.aau.dk

AAU supervisor for the thesis has been Prof. Torben Bach Pedersen Aalborg University, Aalborg, Denmark.

UPC supervisor for the thesis has been Associate Professor Oscar Romero, Universitat Politècnica de Catalunya, BarcelonaTech, Barcelona, Spain.

Co-supervisor for the thesis has been Assoc. Prof. Christian Thomsen, Aalborg University, Aalborg, Denmark.

Description of the thesis

The rapid growth in number and size of multiple data sources in the Internet, like social platforms, foras, blogs, as well as ubiquitous installations of sensors and various IoT devices, results in tremendous supply of heterogeneous data - commonly called big data (BD). Such data have their proper characteristics described by *nVs*. Among these Vs, the most important ones from a technical point of view include: volume, velocity, and variety. The *volume* of data stored reaches petabytes or zetabytes. The data arrive to their users at a high speed (*velocity*), frequently as an infinite stream of data. The *variety* denotes that there exist data of multiple structures, from fully structured (e.g., relational), through semi-structured (e.g., XML, NoSQL, graphs), to unstructured (e.g., texts, images, sounds, video). These characteristics caused that traditional business intelligence architectures became inapplicable to big data.

One of the most important issue is to be able to integrate those huge and heterogeneous data. In traditional, relational data warehouses, this task was realized by an intermediate hardware and software layer, called ETL (Extraction, Transformation, Loading). As BD are highly heterogeneous, the process of integrating them is much more difficult than in traditional data warehouse systems. For this reason, new BD integration architectures were developed, i.e., data lakes or polystores. Nonetheless, in these novel architectures, in order to correctly integrate BD, an extensive metadata usage is needed. Traditional DW architectures were based on a metadata industry standard called CWM (Common Warehouse Metamodel). Unfortunately, there no exists such a standard for BD. As a result, the interoperability of multiple BD sources and data integration is a real challenge.

Another issue is querying BD. Their volume and heterogeneity prevents unskilled users from writing data exploratory queries. For this reason, a system should assist a user as much as possible in the process of exploring data. This functionality is commonly called exploratory OLAP. This functionality, however, may become feasible with the support of advanced metadata models and semantic techniques.

The reviewed dissertation by Jovan Varga sets two goals. First, to provide a metadata model rich enough for integrating big data. Second, to provide semantic metadata for exploratory OLAP. With this respect, the reviewed dissertation addresses an important not only research but also technological issues. The problems addressed in this dissertation are up-to-date, novel, and adequate for a PhD.



The reviewed dissertation is based on a collection of 6 papers, listed below. 4 of these papers have already been published; 3 papers - in proceedings of international high quality conferences DaWaK, DOLAP, and ICDE, 1 paper - in a high quality Elsevier journal (with impact factor). It is planned to submit the remaining contributions of this dissertation to an international conference and an international journal.

The dissertation is organized in 6 chapters, a bibliography, and two appendices. The first chapter is introductory - it provides a background on data analytics and metadata. Chapters 2 to 5 include research contributions, i.e., the research papers co-authored by J. Varga (cf. Section 3 of this report). Chapter 6 summarizes and concludes the dissertation as well as discusses future research directions. Appendices A and B include two papers, originally presented at conferences.

Chapter 2 is based on the research contribution published as [1], Chapter 3 is based on [2] and [5], Chapter 4 is based on [3] and partially on [6], Chapter 5 is based on [4] and partially on [6], Appendices A and B include original conference papers [5] and [6], respectively.

- [1] J. Varga, O. Romero, T.B. Pedersen, C. Thomsen. Towards Next Generation BI Systems: The Analytical Metadata Challenge, DaWaK, 2014, pp. 89-101
- [2] J. Varga, O. Romero, T.B. Pedersen, C. Thomsen. Analytical Metadata Modeling for Next Generation BI systems. To be submitted to a journal,
- [3] J. Varga, A. Vaisman, O. Romero, L. Etcheverry, T.B. Pedersen, C. Thomsen. Dimensional Enrichment of Statistical Linked Open Data. Journal of Web Semantics, vol. 40, 2016, pp. 22-51
- [4] J. Varga, O. Romero, T.B. Pedersen, C. Thomsen, E. Dobrokhotova. SM4MQ: A Semantic Model for Multidimensional Queries. To be submitted to a conference.
- [5] J. Varga, O. Romero, T.B. Pedersen, C. Thomsen. SM4AM: A Semantic Metamodel for Analytical Metadata. DOLAP, 2014, pp. 57-66
- [6] J. Varga, L. Etcheverry, A. Vaisman, O. Romero, T.B. Pedersen, C. Thomsen. QB2OLAP: Enabling OLAP on Statistical Linked Open Data. ICDE, 2016, pp. 1346-1349

Assessment of the thesis

Jovan's PhD thesis is situated in the area of Business Intelligence and Data Warehousing; more specifically, the topic addressed is user assistance in exploratory OLAP. The goal of the work is to provide the foundations for creating, managing, and exploiting the metadata necessary to improve the user experience during exploratory OLAP from external, semantics-rich data sources. The main achievements made in pursuing this goal are: (i) a metadata framework for supporting users on BI 2.0 platforms; (ii) an RDF-based semantic metamodel, called SM4AM, for analytical metadata; (iii) an approach to enrich a QB data set with additional metadata and conform it to the QB4OLAP metamodel; (iv) a semantic model, called SM4MQ, to express multidimensional queries on a QB4OLAP data set.

The **Introduction (corresponding to a Summary)** mainly presents the motivation for the thesis work. The work is situated in the context of next-generation BI systems, and in particular of exploratory OLAP. Here, metadata are seen as the key to improve the user's experience and overcome the limitations of existing approaches. A generic metadata lifecycle is then presented and discussed with specific reference to exploratory OLAP. Finally, an overview of the thesis organization is given.

Chapter 2 (corresponding to Paper 1) describes a metadata-based framework for supporting users in next-generation user-centric BI systems. The approaches for supporting OLAP users are surveyed and classified based on their input, paradigm, scope, and goal. The aim of this section is to convince the reader that metadata should be considered as first-class citizens and provide a unified view of the metadata artifacts needed for supporting the user analytical tasks. The overall framework and the classifications proposed are comprehensive and satisfying. The chapter forms a good basis for future research beyond the thesis. The line of work can be for example extended by deeper examination of the limitations of current approaches. Further, the future research



could add more insights about relations to original contribution of Jovan. While this chapter is user oriented, the other chapters are focusing on exploratory OLAP.

Chapter 3 (corresponding to Paper 2), which in turn is an extended version of Paper 5) is focused on metadata modeling. This chapter partially also benefits from findings in chapter 2. It argues that the heterogeneity of BI systems calls for a metamodel that is general enough to let different metadata models coexist. In this direction, a semantic metamodel for analytical metadata called SM4AM is proposed and explained, and its benefits are discussed with reference to a running example. The SM4AM metamodel is carefully designed and we are aware that it has been profitably reused by other researchers for their work, which proves its flexibility and effectiveness. The PhD student contributes here also a set of modeling guidelines, whose aim is to guarantee the consistency and correctness of the model instantiation, usage, and possible extension. To show the applicability of the proposed metamodel, it was applied to a real data set - World Bank Linked Data.

Section 6: the author analyzes approaches that support the assistance of a system in a user's analysis of data. Three such approaches were distinguished, namely: (1) classical database user assistance, (2) OLAP user assistance, and (3) general metadata modeling. In the research literature there exists the fourth approach - intelligent data mining assistants. Depending on the approach, such assistants help a user to select the right data mining algorithm or creating a suitable data mining scenario. An assistant of such a type is available, for example in Rapid Miner. Some research references on this topic (beyond this dissertation), which could be used for future research include:

- F. Serban, J. Vanschoren, J-U. Kietz, A. Bernstein: A survey of intelligent assistants for data analysis. *ACM Computing Survey*, 45(3): 31, 2013;
- J-U. Kietz, F. Serban, S. Fischer, A. Bernstein: "Semantics Inside!" But Let's Not Tell the Data Miners: Intelligent Support for Data Mining. *ESWC 2014*;
- J. Vanschoren: Meta-learning architectures. In: *Meta-learning in Computational Intelligence*, 2011.

Chapter 4 (corresponding to Paper 3) aims at automating the process for enriching QB data with QB4OLAP semantics, motivated by the limitations of the QB vocabulary. A comparison between the expressiveness of QB and QB4OLAP is made, and the enrichment algorithm is proposed. A tool called QB2OLAPem that implements the proposed approach is described, and its effectiveness as emerging from an experiment made with real users is discussed. The enrichment process is part of the publish-enrich-query paradigm entailed by exploratory OLAP, and has a key role in making linked open data accessible to users through an OLAP-like querying interface. We believe this paper gives a significant contribution to the state-of-the-art literature on exploratory OLAP.

On page 84 the author states that "the same semantics is represented with different concepts, the same concepts have different semantics". He illustrates this observation with example "we may have different currencies, different measure units, etc.". This example can be remodeled as the semantics of e.g., currency is the same regardless we use USD, EUR, or PLN. They can be treated as different values of the same semantics - currency (money).

Chapter 4 proposes a method for enriching QB metadata with dimensions. To this end, the author proposed an algorithm for discovering dimensions in RDF data. In the context of relational data warehouses similar concepts were proposed. In future research, the following related contributions can be considered:

- Song I.-Y., Khare R., Dai B.: SAMSTAR: a semi-automated lexical method for generating star schemas from an entity-relationship diagram. *DOLAP*, 2007;
- Phipps D., Davis K.: Automating Data Warehouse Conceptual Schema Design and Evaluation. *DMDW*, 2002.

Section 4.3 includes a mixture of introductory and state of the art paragraphs as well as contribution - Algorithm 1. The presentation of the algorithm could be improved. The description of action in line 2 could be clarified by "initial levels". On page 86, the author states that a default aggregation function is associated with a



measure. How the system checks whether a given default function is applicable to a given measure? For example, function sum on a stock price over time, will not produce sound results. Furthermore, having this example in mind, shouldn't an aggregation function be associated with a measure and dimension, rather than just with a measure?

Section 5.1 describes the method of extending QB with metadata describing a cube element in QB4OLAP. An explanation or justification why QB4OLAP is used could be helpful.

Section 6.4: as the motivation of the metadata enrichment it was stated that the QB model does not support the concept of either measures or dimensions. To provide OLAP functionality on QB data, such concepts are necessary and this motivates the need of metadata enrichment. Now (in the 3rd paragraph) the author states that "QB2OLAPem exploits the QB semantics and uses the QB dimension concept as valid starting point of analysis from where to look for FDs". Clarification of this sentence with respect to motivation could be helpful.

Section 6.4: how 1:1 and m:n relationships are handled?

Chapter 5 (corresponding to Paper 4) argues that there is a gap in the literature about query modeling for exploratory OLAP. To fill this gap, it proposes an RDF formalization of multidimensional queries, called SM4MQ, that builds on the QB4OLAP vocabulary and is oriented to sharing, reuse, and metadata processing (e.g., for query recommendation). SM4MQ covers all the basic operations of the OLAP paradigm. With respect to this, it would be nice that the formalization includes the concept of OLAP session, which is mentioned in Chapters 2 and 3 as a relevant artifact to be dealt with in metamodeling for OLAP. To enable the computation of query similarity, an approach to transform queries from SM4MQ to vectors is also introduced. Discussion about how the author's approach compares to the other ones in the literature for measuring similarity of multidimensional queries could be clarified better; in general, the discussion of the related work made in this chapter is not at the same level as the ones made in the other chapters. Despite these minor remarks, also Chapter 5 gives a significant contribution to exploratory OLAP, with specific reference to the querying stage of the publish-enrich-query paradigm.

Section 3: why PIVOT was excluded from the set of supported OLAP operations discussed in this chapter?
Section 3.3: it was said that the ROLL-UP operation "is represented with a data cube schema, a dimension, and a level to roll-up to". We believe that the definition of ROLL-UP also includes a measure to be aggregated and an aggregation function used for rolling-up the measure. The same comment applies to the definition of the DRILL-DOWN operation.

Section 4.1: it was said that "the internals of query representation are typically not available". Since most of the DBMSs offer to a DB administrator a functionality for visualizing and analyzing query execution plans with their execution statistics, it would be nice to clarify the sentence.

Section 4.2: in the bullets it is unclear what is meant by a "feature". Is a query clause a feature?

Table 5.1 on page 153: it is unclear how the order of the cells is defined. Let us assume a simple example of two queries Q1 and Q2. Let Q1 have the following predicates: a & b & c and Q2 have the predicates: c & b & a. In which order they will appear in their corresponding vector representations?

Appendix B (corresponding to Paper 6) describes QB2OLAP, an enrichment tool that substantially overlaps with the QB2OLAPem tool presented in Paper 3. While Paper 3 extensively describes the enrichment method, Paper 6 is a demo paper so it is more focused on the overall approach, on the user interface of the tool, and on the specific demonstration scenarios.

Research goal

Jovan's goal with this work is to provide a semantic-aware metadata framework to support exploratory OLAP.



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Overall, the work meets this goal by giving a significant contribution to all three stages of the publish-enrich-query paradigm entailed by exploratory OLAP.

Thesis presentation

The thesis is clear and well-written, and presents a comprehensive picture of the research problem it deals with. All chapters/papers (except maybe Chapter 5) are supported by a solid analysis of the state-of-the-art literature and by a discussion of the differences with the previous approaches. Chapters 3, 4, and 5 are completed by a comprehensive experimental evaluation; in this regard, as already mentioned, the sketch of a possible complete use case covering all the different parts of the approach proposed and showing how they can work in synergy to support the user in a concrete scenario of explorative OLAP could be beneficial.

State of the art analysis

The dissertation includes a broad and up-to-date state of the art that covers the following areas: data warehousing and OLAP, assisted data analysis, semantic technologies, and metamodels.

Research methodology

The research methodology applied by the PhD student was adequate to his research problem and goal. First, the student applied state-of-the-art analysis for analyzing existing solutions and finding their drawbacks. Second, he provided (whenever needed) formal models of the concepts he proposed and developed. Third, the applicability of all the developed concepts, models, algorithms, and techniques have been verified by means of: (1) a prototype software, (2) experiments, and (3) case studies on real data sets. For this reason, we are convinced that the research methodology was right.

Dissertation conclusions

The final conclusions of the dissertation are sound and convincing. Moreover, the outline of the future work is a natural continuation and extension of the research presented in the evaluated dissertation. On the other hand, the conclusions are mainly presented as summary of the thesis chapters. It would be more valuable to discuss deeper insight into the gap still existing between the state-of-the-art research on exploratory OLAP and the commercial implementations currently available.

Language, writing, and typesetting

While the thesis is well understandable, it would have been still possible to put additional effort on some typos, grammar, additional chapter on definitions with examples, explanations of RDF concepts (Figures 3.5-3.15), as well as larger font. These changes are not required; this is an assessment.

Dissemination

The dissemination of the research results has been very good, as demonstrated by the presentations of Jovan's work given at well-established international workshop and conferences of the data warehousing area, as well by the papers published in international journals.

Conclusions

The reviewed PhD dissertation of Jovan Varga addresses an important, practical, and up-to-date research problem in the area of integration and analytical processing. The Author contributed a comprehensive metamodel for the purpose of querying RDF data and for the purpose of describing queries' semantics. As the proof of the concept, the developed metamodel and techniques for managing it were implemented in a prototype software.

The content of the dissertation has been published as: 3 international high quality conference papers (DaWaK, DOLAP, and ICDE) and one high quality journal paper with an impact factor, by Elsevier. Moreover, two other



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papers presenting the contribution of the thesis will be submitted to a conference and to a journal. For this reason, the quality of the contributions has already been verified and approved by international research communities.

The comments, observations, and questions, stated in this assessment, show the areas of potential improvement and are starting points for discussion. They do not downgrade the very positive evaluation of the dissertation.

The research contribution of the PhD dissertation by Jovan Varga is very good - at a high international level.

Presentation and Discussion

The presentation, which was carried out on 24.01.2017 at the UPC Barcelona, was good and clear. The presentation and discussion covered most essential points of the thesis. The presentation and discussion went even beyond the thesis content especially in terms of examples and extensions. The candidate's answers to the questions were satisfactory. Both, presentation and discussion fulfilled the level required for a PhD defense.

Conclusion

The committee unanimously recommends awarding the PhD degree to the candidate

24.01.2017


Stefano Rizzal


Robert Wrembel


Peter Dolog



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Dato: 8. februar 2017

Til Forskerskolen
Att.: Lisbeth Diinhoff
N.J. 10

Vedrørende tildeling af ph.d.-grad til Madhukar Deshmukh

Institut for Elektroniske Systemer indstiller at bedømmelsesudvalgets indstilling følges således at Madhukar Deshmukh tildeles ph.d.-graden for sin ph.d.-afhandling "Spectrum Sensing Strategies in Cognitive Radio Networks" d. 03.02.2017.

Lektor Albena Mihovska har været hovedvejleder for Madhukar Deshmukh.

Med venlig hilsen

A handwritten signature in black ink that reads "Børge Lindberg". The signature is written in a cursive style.

Børge Lindberg

Instituttleder

Assessment of the PhD thesis entitled:

SPECTRUM SENSING STRATEGIES IN COGNITIVE RADIO NETWORKS

Submitted by Madhukar Deshmukh, Master of Engineering in Digital Systems

The assessment committee consists of the following members as decided by the Dean of the Faculty of Engineering and Science by 17-05-2016:

Member 1: Professor K.C. Chen, College of Electrical Engineering & Computer Science, National Taiwan University, Taiwan, chenkc@ieee.org

Member 2: Professor K.P. Subbalakshmi, Department of Electrical and Computer Engineering, Stevens Institute of Technology, USA, ksubbala@stevens.edu

Member 3 (chairman): Professor A. Henten, Department of Electronic Systems, Aalborg University, Denmark, henten@es.aau.dk

Supervisor for the thesis has been:

Associate Professor A. Mihovska, Department of Electronic Systems, Aalborg University

Co-supervisors for the thesis have been:

Associate Professor F.B. Frederiksen, Aalborg University, Denmark

Professor A. Karandikar, Indian Institute of Technology, India

Professor R. Prasad, Aalborg University, Denmark

Description of the thesis

The thesis by Madhukar Deshmukh entitled 'Spectrum Sensing Strategies in Cognitive Radio Networks' is a monograph of 97 pages. In addition, there are four appendices where the last appendix is a paper published in 2014 entitled 'Quantitative Assessment of TV White Spaces for Cognitive Radio Networks in India'. The thesis is partly based on papers previously published or on their way to publication.

The thesis has six chapters. Chapter 1 is an introduction including problem definition and summary of conclusions, general background on dynamic spectrum sharing, overview of opportunistic

spectrum sharing, a brief explanation of the concept of cognitive radio, a section on motivation and challenges, and an overview of the organization of the thesis and its main contributions.

Chapter 2 is a theory and modelling chapter discussing dynamic spectrum sharing and interference. The thesis focuses on the aggregate interference, experienced at the primary receiver as well as secondary receivers taking network topology, operational behavior of the network, and the attenuation of signals into consideration. The principles of a Poisson Point Process are used for modelling the network topology and an algorithm for the characterization of interference in cognitive networks is elaborated. The outage probability is calculated and the Chernoff Bound on interference is derived.

Chapter 3 is empirically based, presenting studies performed in connection with the PhD on the use of channels allocated for television transmission in the Pune region in India. Digitization of the terrestrial television transmission network has not yet been finalized in the region, and the measurements show that the television spectrum used for analog transmission is heavily under-utilized.

Chapter 4 uses the framework presented in chapter 2 and the results from chapter 3 to calculate the average TV White Space capacity measured in Mbps per user after the introduction of digital television. This calculation is performed taking the aggregate interference from secondary devices into consideration.

Chapter 5 then focuses on the detection of information signals and an algorithm is developed based on signals from Gaussian distributed noise samples using extreme eigenvalues of a Wishart matrix modelled from the sample covariance matrix using a centering matrix to scale the sample covariance matrix. It is found that this detection algorithm performs better than former algorithms under noise and interference uncertainty.

In chapter 6, a short summary of the findings is presented and future work is briefly mentioned. Future work must, according to the thesis, examine the TV White Space availability after finalizing the transition to digital TV distribution technology in India; it must consider the node distribution in remote rural area; and, the covariance model used in the thesis must be extended for cooperative spectrum sensing.

Assessment of the thesis

The research questions examined in the thesis are formulated as 6 questions:

1. "How much protection should be provided to the primary receiver?"
2. How much is the aggregate interference generated in the cognitive radio network setting, and how is it statistically distributed, and is it bounded statistically?
3. What will be the impact of the aggregate interference statistics on the decodability of primary receiver?

4. Under the passive primary network setting (terrestrial TV network), can we find the estimate of white space availability?
5. What is the impact of aggregation of the interference on white space availability?
6. What is the impact of the aggregate interference and its distributional uncertainty on the performance of the detection mechanism?"

The topic addressed in the thesis is highly timely considering the fact that aggregate interference is in need of further exploration and the fact that interference characterization is of great importance in engineering practice. This applies, e.g., to the characterization of interference from the use of TV White Spaces (TVWS), which is an important topic but a topic which has been under-addressed in the literature. A major and valuable contribution of the thesis relates to the extension of work on aggregate interference on TVWS as a sort of heterogeneous network structure. Furthermore, using Indian TVWS as a case is appropriate taking the current and future mobile penetration rates in India into consideration.

The thesis is well organized and is well laid out in the introductory chapter. The overall structure of the thesis with a well explained general introduction and overview at the beginning followed by a theory chapter, an empirical investigation, and an analysis using the theory framework on the empirical material resulting in a calculation of the implications for TVWS capacity in the case analyzed, finally followed by a detection algorithm to be used for cognitive radio implementation constitutes a coherent piece of scientific work. In terms of the quality of the dissemination of the research results, the thesis is well explained and argued.

However, the linkage between the theory chapter (chapter 2) and the empirical material presented in chapter 3 is not entirely clear and could have been further elaborated to better judge the validity of the theoretical model. Furthermore, the Chernoff Bound presented in chapter 2 is notorious for being very loose. It would have been desirable to include a discussion on other possible bounds, including the difficulty or ease of determining such bounds. Moreover, the theoretical work presented in chapter 4 is interesting, however, comparisons with simulations and/or measurements would have added further to the discussion.

It might have been worth adding a discussion to the theory section on another way of looking at the primary user model, seeing it as an on/off process. Several researchers have studied quality of service (QoS) parameters of networks under such models. Finally, the analysis in chapter 5 proceeds under the assumption of known fixed numbers of sources and receivers - the question could be whether this is a reasonable assumption. The more general question is how the robustness of the proposed methods can be understood in terms of practical engineering.

The references used in the thesis are of high quality and have been used properly. Further references could, however, have been included on the issues of cognitive radio as well as on interference measurement and modelling.

Oral presentation and discussion

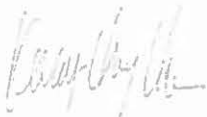
Date and place of the oral defense: 03 February 2017, Aalborg University, Aalborg

At the defense, the oral presentation of the thesis closely reflected the content of the thesis. In the subsequent questioning and discussion, the candidate pointed out the major findings and expanded on the coherence of the findings of the thesis. The defense indicated that the major strengths are in the theoretical work and simulations. The defense also showed that additional empirical evidence would further enhance the quality of the findings. The discussion documented that the candidate is able to engage academically in the discussions regarding weaknesses and strengths of the thesis.

Conclusion

The scientific and engineering work performed in the thesis is of high quality. The line of argumentation is clear and there are valuable contributions to the literature especially in the areas of interference, white space capacity, and detection of information signals. The research questions put forward are dealt with in a reasonable manner and the conclusions of the thesis address the research questions and are supported by the material and discussions presented in the thesis.

On the basis of the quality of the written thesis and the oral defense, the committee unanimously recommends that Madhukar Deshmukh be awarded the PhD degree.



Member 1

Prof. K.C. Chen

Member 2

Prof. K.P. Subbalakshmi

Member 3

Prof. A. Henten





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Det Teknisk-Naturvidenskabelige Fakultet
Forskerskolen
Niels Jernes Vej 10

Dato: 15-03-2017

Vedr. "Perception and Possibilities of Corporate Responsibility, CSR, in a Public Company of Pakistan, Casestudy of Paktistan State Oil, PSO, by Mushtaque Ali Jariko, Institut for Planlægning

Hermed fremsendes bedømmelsesudvalgets Final Assessment vedr. ovennævnte ph.d. afhandling.

Instituttet anbefaler, at bedømmelsesudvalgets indstilling følges, og at Mushtaque Ali Jariko tildes ph.d. graden.

Med venlig hilsen

Marianne Sørensen



AALBORG UNIVERSITY
DENMARK

Assessment of the PhD thesis entitled:

PERCEPTION AND POSSIBILITIES OF CORPORATE SOCIAL RESPONSIBILITY (CSR) IN A PUBLIC COMPANY OF PAKISTAN, A CASESTUDY OF PAKTISTAN STATE OIL (PSO)

Submitted by MUSHTAQUE ALI JARIKO, M.Sc. Business Administration (MBA)

The assessment committee consists of the following members as decided by the Dean of the Faculty of Engineering and Science by 9th December 2016:

- Associate Professor Pernille Bertelsen (Chairman), Aalborg University Department of Development and Planning, Aalborg, E-mail: pernille@plan.aau.dk
- Professor, PhD John Andersen, Roskilde University Department of People and Technology (IMT) Roskilde, E-mail: johna@ruc.dk
- Associate Professor, Dr. Zahid Ali Memon, Mehran University Institute of science Technology and Development (MUISTD) & Mehran University of Engineering and Technology (MUET), E-mail: zahid.memon@faculty.muett.edu.pk

Supervisor Associate Professor Tom Børsen, Aalborg University, Department of Development and Planning.

Co-supervisor Professor Ashique Ali Jhatial, Sindh University, Institute of Commerce, Jamshoro, Pakistan

Description of the thesis

The thesis, a monograph of 243 pages, consist of 9 chapters and a literature list.

- Chapter 1 is an Introduction to the research context and Pakistan's socioeconomic and environmental problems
- Chapter 2 contain the research objective and the study design as well as an overview of the thesis
- Chapter 3 account for the research methodology including case study research and action research
- Chapter 4 provides the conceptual landscape of corporate social responsibility (CST)
- Chapter 5 present the status of the Corporate Social Responsibility (CSR) in Pakistan (and is based on a published paper: " Jariko, M.A., Børsen, T., and Jhatial, A.A., 2016 in International Journal of Business and Public Administration) 13 (1), 1-20,"
- Chapter 6 contain the case study of the Pakistan State Oil (PSO) company and its CSR activities
- Chapter 7 is an analysis of the interview data
- Chapter 8 present the action research workshop undertaken
- Chapter 9 is the conclusion and recommendations

Assessment of the thesis

Overall, the scientific standard of the thesis is a fairly good attempt to highlight Corporate Social Responsibility (CSR) and its emerging scope in the developing countries taking insights from global literature. The enormously available literature on CSR focused on developed countries provides enough material to replicate it in the developing countries with cautious understanding of context and socioeconomic milieu. In chapter 1 the thesis take advantage of that literature and tried to connect it with whatever scant academic writings are available with regard to developing cluster of countries; Pakistan being no exception to that. There is a dearth of CSR specific literature in the case of Pakistan. In such a situation, this research will, to a certain extent, fill that gap, enrich the field and open avenues for future research within CSR in a Pakistan context.



The scholar has very justifiably made a case for CSR as a framework/strategy to help alleviate poverty and shoulder responsibility of the resource crunched, inefficient and corrupt governments in most of the developing and poor countries. The arguments put forth for businesses to pursue CSR in their areas of operation besides making profit, are also found to be strong enough to make businesses understand how and why they are supposed to behave responsibly. The advantages that CSR brings to businesses are also amply highlighted and conceptual framework suggested is, with some observations and little disagreement, providing better roadmap for companies to adopt CSR norms and values. Global Reporting Initiatives (GRI) and United Nations Global Compact (UNGC) are two robust international policy guidelines for companies to follow starting with the former (GRI) to the later (UNGC); the scholar has devoted enough portion of the thesis to these two frameworks.

The overall research objective of the scholar was to study how Pakistan State Oil company managers of today understand and practice CSR.

This aim is distilled into three research questions:

- a) What are the major dimensions of CSR related to CSR practices in Pakistan?
- b) How do PSO managers perceive CSR both as a set of activities and as a theoretical concept?
- c) What are the barriers and opportunities of managers of PSO to adapt to a more comprehensive CSR approach or otherwise change their current CSR practice?

These research questions are well argued and they guide the research work and the reporting of the findings. There is a clear link between the research questions, the literature study and the empirical data. The research questions are also answered in the concluding chapter of the thesis.

The methodology employed was qualitative research design, a case study research on how CSR is practice in developing countries including an action research workshop. The scholar places his work within the philosophy of social science research and account for four components being imperative to the collection and understanding of research data. These are; ontology, epistemology, human nature and methodology. The research investigates an ongoing phenomenon - being the managers understanding and practice of CSR - and therefore, in addition to the case study research, an action research approach in the form of a workshop with the managers is included in the research design. This is an encouraging research design that enable the scholar to deliver new and stimulating knowledge to the field of studying CSR in developing countries.

The contact to the case company, the way respondents were recruited, the ethical considerations in the interview survey etc. is accounted for, and it is obvious that the scholar had to deal with substantial organizational and logistic obstacles, with regard to getting sufficient information about CSR strategies and practices from the companies, and huge challenges, with regard to recruitment of useful sample for the purpose of the research study.

There is a detailed theoretical account of CSR ranging from classical Carroll pyramid to its transition from shareholderism to stakeholderism. The scholar seems to be in agreement with most of the other academics and researchers who have seen CSR in Pakistan to be narrowly focused on philanthropy only. He has, however, mentioned community development and environmental responsibility as two other initiatives being taken next to philanthropy, charity and donations. Human rights care and investment in sports by companies are yet other two areas where companies in Pakistan have started to pay attention to.

Case study on 'Pakistan State Oil' using 'Action Research' method is one of the most significant contributions of the scholar. It is not easy to gain access to a public sector for profit organization given the dismal state of CSR affairs in the country. There is a huge gap in CSR practices and preaching in the country and companies resort to 'greenwash' rather than putting in honest efforts and spending peanuts



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on CSR actions. Although, CSR is predominantly a voluntary pursuit (with regard to developed countries perception), its adoption using some coercive push, in the case of developing countries, is quite often advocated in research findings.

Empirical knowledge on CSR activities are described as being limited to philanthropic and other community services and initiatives such as health, education, environment etc. The PSO managers had little knowledge about the broader perspective of CSR and it was identified that Pakistan public sector companies remain under political influence in a way that hinders development of CSR in a broader and more coherent sense. So far, CSR is limited to philanthropic activities. Ethical, legal and environmental guidelines are available, but are treated separately from the CSR framework. Most managers do not have sufficient power to make efficient decision due to a very hierarchical decision making structure.

One of the interesting observation is the role of *Zakat* as an ethical or moral principle (Islamic CSR): every Muslim is obligatory to pay a certain amount for those who are needy. Thus, the PSO managers state for example "...above all the concept of *Zakat* takes us to do philanthropic CSR activities" (p.156)

The results from the *action research inspired workshops* in Karachi from 2016 with PSO managers and academic experts, are analyzed. The scholar set out – with action research methods as a tool - to actively facilitate further development, joint commitment and reflections with regard to the PSO's CSR strategies and activities. In other words, in the research study there was a positive shift from a more descriptive approach: how does CSR actually work to more a *prescriptive* phase asking the group of managers: where do you want to go with CSR? This is an important shift bringing future directions into the research. Different traditions like Participatory Action Research (PAR) in the international action research tradition are discussed and the key characteristics of objectives and methodologies Action Research (AR) are summarized with keywords like: Human flourishing, participation and democracy, knowledge in action and focus on practical issues (p.161) followed by an outline of the concrete design of the phases in the workshop. In phase one, the participants openly discussed the main problems including political pressure, lack of management/leadership commitment and lack of governmental support. One example of a critical case that is mentioned is the profiled community development programs (Model Street Program) that was suspended due to change of the CEO of PSO. In the second phase the participants were given input from United National Global Compact Principles (UNGCP) and CSR reporting, which was point of departure for critical reflections and ideas to future CSR action. This seemed to work to some extent and the participants developed a new framework or model for CSR (p.181, 184), which expands the understanding of CSR from its existing. On a more practical level it was suggested to expand the existing practices of CSR e.g. work with programs for clean water, medical facilities in smaller villages.

The thesis concludes that CSR is still at an early stage, which reflects that Pakistan still faces serious socioeconomic and political problems like human rights violations, labor rights, environment protections etc. This argument is sufficient supported and documented throughout the thesis.

In the very final section the dissertation (in line with the case study tradition) draws together 12 context sensitive recommendations for future CSR-development.

All in all, the thesis has an important ambition relevant to the Pakistan and international society regarding the development of local national CSR strategies. It maintains a good intellectual level and comes across as a creative input to the current discourses on the challenges of implementing CSR beyond policy level in developing countries. It is a valuable scientific contribution.

Oral presentation

Date and Place of the defence: 13. March 2017, Aalborg University Copenhagen



Mushtaque Ali Jariko gave a well-structured presentation which elaborated on the main findings in his thesis.

In the following discussion Mushtaque Ali Jariko answered with good responses to the comments, questions and issues raised by the Assessment Committee. He:

- Robustly responded to all questions
- Well prepared to answer questions, cited appropriate literature
- Anticipated next steps for research
- Exhibited a sense of reflexivity about his own work and process

Conclusion

Mushtaque Ali Jariko has written a comprehensive PhD thesis addressing the challenges of CSR in the Pakistan society. The research questions are addressed throughout the research design, analysis and conclusions.

The thesis demonstrates an awareness of the subject area and contributes to the development of new knowledge in an emerging field in developing countries, more specifically Pakistan.

The committee therefore recommends the award of the PhD degree to Mushtaque Ali Jariko

Copenhagen 13 .03.2017

Member 1

Member 2

Member 3



AALBORG UNIVERSITET

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Dato: 1. februar 2017

Til Forskerskolen
Att.: Lisbeth Diinhoff
N.J. 10

Vedrørende tildeling af ph.d.-grad til Roslyn Layton

Institut for Elektroniske Systemer indstiller at bedømmelsesudvalgets indstilling følges således at Roslyn Laytons tildeles ph.d.-graden for sin ph.d.-afhandling "Which Open Internet framework is best for mobile app innovation? An empirical inquiry of net neutrality rules around the world" d. 31.01.2017.

Professor Knud Erik Skouby har været hovedvejleder for Roslyn Layton.

Med venlig hilsen

A handwritten signature in black ink that reads "Børge Lindberg". The signature is written in a cursive style.

Børge Lindberg

Instituttleder



Final Assessment of the PhD thesis entitled

WHICH OPEN INTERNET FRAMEWORK IS BEST FOR MOBILE APP INNOVATION?

AN EMPIRICAL INQUIRY OF NET NEUTRALITY RULES AROUND THE WORLD

Submitted by Roslyn Layton, MSc Business Administration

The assessment committee consists of the following members as decided by the Dean of the Faculty of Engineering and Science, Aalborg University by 17th of Oktober, 2016:

Prof. Reimer Ivang, PhD, Aalborg University Fibigerstræde 9210 Aalborg (Chair) E-mail: lvang@business.aau.dk

Prof. Peter Lindgren, PhD, Aarhus University Birk Centerpark 15, 7400 Herning, Denmark E-Mail: Peterli@btech.au.dk

Prof. William Lehr, PhD, Massachusetts Institute of Technology, US Email: wlehr@mit.edu

Supervisor for the PhD candidate have been Prof. Knud Erik Skouby,

Aalborg University, Denmark E-mail: skouby@cmi.aau.dk

The assessment committee hereby submits its final written recommendation. The committee has concluded that overall, the thesis is solid, and we recommend that the thesis is accepted for public defense.

The assessment committee has elaborated its overall conclusion in the following pages.

The thesis consists of six chapters, totaling 444 pages. In addition, the thesis consists of an abstract in Danish and English respectively; table of contents, acknowledgements, totaling 16 pages.

The thesis has three main parts: The first part (chs. 1-2-3) sets the stage (research questions, methodology and definitions); the second part (chs. 4-5) summarizes and discuss the results of the thesis. In part 3 (chs. 6), concludes on the findings, outlines contributions, and draws policy implications.

The thesis is summarized below and later each chapter has been assessed separately and the assessments have been integrated to a final and overall assessment and conclusion.

Summary of the thesis

Net neutrality or "Open Internet" rulemaking are necessary for application innovation. While the focus for policymakers has largely been to make rules, the thesis address that there is less attention on how to measure the impact of such rules and how well they achieve their innovation goals. The research investigates

"To what degree the introduction of rules in a given country stimulates innovation in that country's mobile app ecosystem".

The overall research question (RQ) of the thesis is:

"to investigate whether the introduction of net neutrality in a given country stimulates that country's third party application and service innovation on mobile networks. As net neutrality is promulgated on a national basis presumably to benefit the country, its citizens and enterprises, the research question tests whether the introduction of rules stimulates apps from publishers based in that country, and whether these apps show a relevant number of downloads, usage and revenues".

The RQ is relevant and interesting to theory and practice.

The thesis describes the key ideas in the net neutrality and innovation literature. The thesis tests the proposition that countries, which adopt net neutrality rules, should experience an increase in mobile app development innovation within their national economy.



To test this, a statistical methodology was developed based upon measuring the number of locally developed mobile apps in the country for relevant periods before and after rules were imposed in the country and the apps corresponding downloads usage, and revenue. Measurement was conducted with two independent toolsets and adjusted for the sophistication and penetration of advanced mobile networks in the country.

The empirical part of the study is based literature review on foundational work on net neutrality, innovation and qualitative and quantitative study of these together with app application ecosystem. The thesis reviews a set of 53 countries, their net neutrality policies, and the results to the respective mobile application ecosystems of the countries after adopting rules between the period of 2010-2016.

To make more meaningful comparisons and avoid inevitable heterogeneity across the countries, the investigation focuses on two similar countries with different rules, Denmark with soft rules (self-regulation) and Netherlands with hard rules (legislation).

The thesis claims to review leading theories of innovation as well as the foundational papers in net neutrality to explain the observed discrepancies.

It presents the research design and methodology for investigation, including discuss the limitations. It describes the data collection and analysis and then present the results. Explanations for the discrepancies are offered in the thesis.

Result and contribution

The research claim to find "significant statistical support for "soft" net neutrality measures adopted on a voluntary basis. Hard rules adopted through legislation and regulation were not associated greater mobile app development for the given country. The thesis ends up with a suggestion - that policymakers revisit their assumptions and expectations for net neutrality policy.

The thesis includes discussion of the limitations of the analysis, the challenges of measurement, and the possibility that the impact of net neutrality might not be even able to be observed or measured. The thesis concludes with policy recommendations based upon the findings.

Essentially the thesis contributes to the identification and deeper understanding of how rules in a given country stimulates innovation in that country's mobile app ecosystem. However, the thesis does not present a theoretical model of the innovation process and its interaction with regulatory rules. Instead, it investigates the proposition empirically by examining data from a cross-national panel data set with measures of the development of mobile data applications (the dependent variable) and measures that characterize the NN rules framework. The author concludes that the empirical data does not support the conclusion that strong NN rules enhance innovation in mobile applications and services, leading to the obvious policy conclusion that such rules may not be in public interest. As such, the thesis may be regarded as a partial critique of NN regulation.

Several challenges of hard-, soft, no rules, and their use related to the impact of innovation on mobile app are presented in the thesis. Important challenges include: Net neutrality or "Open Internet" rulemaking structure (process and content) for the progress and output of applications are shown. The need for changes of the policy makers' mindset related to net neutrality and their rule making involvement are presented together with the impact of involvement of several and different stakeholders in the ecosystem entail characteristics of net neutrality related to innovation of mobile apps. Less are discussed on 'Open Innovation' and disruptive innovation and these topics seems not to be related to the analytical framework and final contribution.

Detailed comments for each individual chapter

Chapter 1: Introduction

Chapter 1 sets the scene in terms of background to the study and its justification. Net neutrality or "Open Internet" is defined and discussed (p.17-20) and it is proposed that policymakers and advocates express the need for rules in their



goal to protect innovation. Little is known about how Net neutrality or "Open Internet" impacts innovation and the author observes that "While thousands of articles have described and debated net neutrality almost none have tested it empirically" The focus of the study is the introduction of net neutrality or "Open Internet" rules in a given country and if these rules stimulates innovation in that country's mobile app ecosystem. Taking note of the different approaches Net neutrality or "Open Internet", the author specifies her research problems as follows:

"to investigate whether the introduction of net neutrality in a given country stimulates that country's third party application and service innovation on mobile networks. As net neutrality is promulgated on a national basis presumably to benefit the country, its citizens and enterprises, the research question tests whether the introduction of rules stimulates apps from publishers based in that country, and whether these apps show a relevant number of downloads, usage and revenues".

The problem is to be investigated through a study of the relative impacts of the policies over the period of 2010-2016 in 53 countries. Two countries, Denmark and Netherlands are selected for further focus because it is claimed that they are similar socio-economic countries with advanced broadband development.

The chapter provides a short but good overview of what the thesis is all about and the problems to be investigated. It also maintains that contribution to our knowledge centers around how policies influence innovation, especially innovation in the area of mobile app development. The chapter does not in argue why it is reasonable to believe that there could be a strong causal relationship between the approach to net neutrality or "Open Internet" and the amount, usage and download of mobile apps in a given country. The author recognizes that the measurement of the effectiveness of net neutrality can be controversial and does acknowledge her own bias towards this. However, the author does not argue why it could make sense and why the indicators could be used to measure the effectiveness of net neutrality.

Chapter 2: Net neutrality and innovation

Net neutrality

The thesis reviews the foundational work and definitions on net neutrality amongst others by Lawrence Lessig & Mark Lemley, Tim Wu, and Barbara van Schewick. Especially TIM WU work plays a major role in the thesis and are covered intense. It is not clear to the committee how the link between net neutrality and innovation actually should be seen theoretically and tested empirically. The committee would have liked to have this discussed more in the thesis.

"The thesis tests the theory on apps in mobile networks and thus claims to offer an important addition to address the gap in the literature (page s 25). The idea is that "intelligent" devices and applications reside at the edge of the network while the "dumb" core of the network facilitates transmission. (Page 37). "The principle, called the end-to-end argument, suggests that functions placed at low levels of a system may be redundant or of little value when compared with the cost of providing them at that low level". (Page 38)"

The author notes: "While this could be read as an obvious observation that the functionality in a network should be placed where it's efficient to do so, to Lemley and Lessig the end to end argument explained the virtue of Internet architecture itself, its "openness", how the "ends" of the network where users and applications reside are "intelligent", and that the protocols and pipes must be as simple and general as possible. They celebrate this "default design" of the Internet, and insist that any deviation in architecture should place burden on the deviating party to justify such action". (Page 38)"

The committee is unsure where innovation actually ends – and can it be said that there is an end and a beginning – especially in innovation and networks? A long theory on continuous innovation, incremental innovation and networks shows that it is very difficult to find the end.



In the thesis, the author refers very much to Wu – who amongst others is “concerned about third party innovation being controlled by the owners of the network. Wu alludes to Edmund Kitch’s The Nature and Function of Patent System and suggests that the network owner behaves like a quasi-patent holder”. Given that, the path of innovation is not known in advance, the owners of the network, suffering their own biases and preconditions to continue its way of doing things, will slow or deter innovation, whether from itself or competing parties. As the communications network is a “platform for a competition among application developers”, it is claimed that “the platform must be neutral to ensure that competition is “meritocratic”. (page 39) and innovation can take place.

In other words, as expressed in the thesis “Wu likens net neutrality as an “evolutionary model” of innovation, one of survival of the fittest” (page 41)

Wu says that only networks can control the quality of service. Page 41 – and maybe innovation. However, networks are worth nothing if they are not related (Vervest 2005, Debra Amidon 2008, Veran Alee 2011) – and especially they will not be able to do business model innovation – new apps – if they are not related. The arguments is that the networks are maybe not the important part but the relations.

Innovation

The thesis covers a broad range of theories of innovation related to different topics and viewpoints to innovation – among others

| Innovation topics covered in the thesis | Innovation topics |
|--|--------------------------------------|
| Schumpeter and creative destruction | Creative destruction – or innovation |
| Rogers and the Diffusion of Innovation | Diffusion of innovation |
| Christiansen and Disruptive Innovation | Disruptive Innovation |
| Lundvall and national innovation system | Innovation Ecosystem |
| David Teece and complementary assets | |
| Jean Tirole and Two Sided Markets | Business Model Innovation |
| Christopher Yoo and the Dynamic Internet | |
| The ecosystem theory of innovation | Innovation Ecosystem |
| The circle theory of innovation | |
| Open innovation | Open Innovation |

The committee finds it unclear why these many “innovation theories” are chosen – and how they are interlinked and later on related to the thesis topic – net Neutrality and innovation. The committee would have liked a discussion on



how do they contribute to the thesis and the analytical work of the thesis. In the table above, a proposal of innovation topics are lined up related to the innovation theories presented in the thesis – but how are these innovation topics related to the innovation taken place in the app applications ecosystems. Where is disruptive innovation and open innovation e.g. a focus in the thesis and later on the discussion of the results of the thesis?

The thesis continues to discuss the two-sided market “contribution and the notion of two-sided markets or platforms, first presented with Jean-Charles Rochet¹⁵⁵ in 2003. This theory offers a robust counterpoint to network neutrality. The theory of two-sided platforms observes that there is an inherent incentive to price efficiently, meaning that market failures are unlikely to occur. Platforms want to get both sides of the market “on board” so they tend to maximize—not foreclose—the participation of the other parties. Anything that a broadband provider does to foreclose one side or the other, reduces its profits. This suggests that there is not an incentive for operators to behave in a way that harms content providers or users. But vitally the companies reinforce each other. (page 78)

This contribution together with the “pooling” of many businesses business models like the many examples in the thesis with Whatsapp are very interesting – but the thesis lacks to show how this could be used in the proposal for a future best innovative mobile app application ecosystem. Furthermore the committee finds it unclear how Teece is used in the thesis.

The committee finds that the candidate includes relevant theories of the field in an independent way. However, some of the presented theories are not used further on in the theses and a clear analytical model is lacking.

Chapter 3: Methodology

Chapter 3 sets forth the authors empirical strategy for testing the effectiveness of NN in promoting edge-based innovation. It is comprised of 8 sub-sections, as follows:

In Sections 3-3.2, the author describes her background with data analysis and makes the case for Randomized Control Trials (RCTs) as an appropriate methodology for formulating and evaluating “evidence-based” policy. The author supports the idea of formulating policies through a process of small-scale testing and pilot programs of the sort that might be implemented in RCTs which are common in clinical trials for the development of new pharmaceuticals and in marketing research studies, but which are seldom fully applicable in the context of policy research which is limited in its ability to set up appropriate experimental frameworks.

In Section 3.2, The author uses the example of the “Limits to Growth” debates to illustrate how a particular model’s inherent assumptions can justify specific outcomes. The author concludes that the assumptions of that earlier model and its conclusions (that economic growth and resources are bounded) have been disproven by subsequent events, arguing overly strongly, in support of the hypothetical that NN proponents might be over-stating the threat to Internet Innovation if strong regulatory rules are not adopted.

In Sections 3.3 and 3.4, the author describes her data set and metrics used in her empirical analysis. The key data is from two data sets: AppAnnie and Apptopia. AppAnnie provides deeper longitudinal data but only includes data on the ranking of mobile apps; whereas Apptopia provides data on mobile app downloads, usage, and revenue, but only at two points in time. The basic test is to cluster data by countries into countries with soft or hard NN rules, where the basis for the distinction depends on the classification of rules made by the author.

Section 3.5 sets forth a number of the key assumptions that underlie the empirical strategy. The first is that the effects of NN regulations can be measured by observing differences in the performance of mobile app markets across countries with different NN rules. The second assumption relates to the effect of NN rules on innovation: strong rules promote mobile innovation. The third assumption is that the countries capabilities to create mobile apps is similar across countries. Assumption 4 states that the methodology assumes all apps are equal. Assumption 5 states that the analysis will focus on downloads instead of fee revenue, and notes that this may bias the analysis in favor of advertising supported applications. Assumption 6 points to potential for unobserved intellectual property rules to



serve as another hidden variable, analogous to the domestic content rules hypothesized above. Assumption 7 is simply a grab all for all the other factors that reasonably may be expected to impact markets for mobile apps and which are likely to systematically vary by country.

Section 3.6 notes additional limitations to the empirical strategy. This includes noting that there is no data set that precisely captures Tim Wu's theory. This section refers more generally to how innovation systems comprise the entire ecosystem, and consequently, render suspect the presumption that the classification of countries based on NN rules will provide an adequate basis for making valid inferences about the impact of NN rules on innovation. The author notes that counting the number of apps with no correction for the quality or social value of those apps (e.g., most of the apps are entertainment-related, either for streaming media or gaming) provide a poor measure of innovation activity.

Section 3.7 provides further information on the data used in the analysis, represented as "definitions" but that does not adequately explain what is included here. Principally, the discussion describes how key data elements were collected and further assumptions. For example, section 3.7.3 identifies how the data on NN rules was collected. The author only codes for existing statutory rules, and does not address active proposals or other issues that may provide bearing on the appropriate classification of NN rules.

Section 3.8 provides some descriptive information on the functioning of mobile application development markets. This discussion re-enforces appreciation of the severe limitations in using application counts to make reliable inferences regarding the impact of NN rules. The discussion points to lots of other factors, including regional factors (e.g., rise of Chinese app developers) as key drivers of mobile app market outcomes. This discussion seems ad hoc and only poorly related to the discussion of methodologies.

The committee finds that the candidate masters scientific research methods well and have a balanced critical stand to the methods especially demonstrated when discussing the rationale of Randomized Control Trials (RCTs) as an appropriate methodology for formulating and evaluating "evidence-based" policy. The author shows that she masters fundamental statistical tests in relation to standard metrics for determining if two observations come from similar data distributions (test on proportions, Chi-square test, and Wilcoxon Signed-Rank tests).

Chapter 4 – Results Summary

Chapter 4 is summarizing the results of the investigation. The introduction outlines the different research contexts, being countries with different net neutrality regimes, with a particular attention to Denmark and Netherlands. The data is a snapshot from the two countries in the years 2011, 2012 and 2016. Even though the data is not comprehensive, the author states that some important trends and changes were observed and she states three issues to be investigated.

The results are summarized in six parts and the different parts are linked to the important trends and changes observed by the author.

The first observation is that countries with hard net neutrality rules did not report a higher incidence of mobile apps than other countries. It is stated in the text that "no country which has adopted hard rules for a period (US excluded) experienced increase in mobile app innovation" (p 207).

The second observation is that countries with soft rules produced more apps than countries with hard rules. It is stated in the text that soft rules or self-regulatory regimes will foster more mobile app innovation compared to other countries.

The third observation is that countries with no net neutrality rules produced a significant number of apps. The author



states that this group is compromised by a divergent group of countries. Data from China is discussed and it is concluded that innovation can occur in “closed” environments and that openness does not appear to be a prerequisite for innovation.

The fourth observation is that the data from the US is hard to explain. It is in the section 4.4. explained and discussed why the data from the US is hard to explain and the author at the end notes that “it may be that net neutrality does not explain why innovation happens on mobile networks.

The fifth observation is summing the role of intellectual property rights. In this section 4.6 it is discussed if the strong intellectual property protection of the US is a potential explanation for the high level of app development and innovation. The observations in the section is inconclusive and there is not reached clear conclusion on this observation.

The last observation is the role of pricing flexibility for mobile subscriptions. It is discussed if the flexibility to partner with content and application providers can explain the number of produced apps in a given country. Again the author concludes that no clear argument can be reached by discussing the observation.

The Chapter’s main strength is its review and summary of different observations that relates to the effectiveness of net neutrality. This draws attention to the potential interlink between policy and the effects on society, in this case especially innovation and the number of apps.

The Chapter’s weaknesses are that the results of the observations are inconclusive and missing ability to explain the development in e.g. the US. Especially the case of the US could indicate that the causal relationship between net neutrality and innovation in mobile apps is weak. In other words, the data could indicate that the level of innovation in mobile apps needs to be explained with basis in other variables and parameters than net neutrality.

Chapter 5 Discussion

Political context of net neutrality rulemaking is discussed intensely in chapter 5 - whether there are common trends and features with drive rulemaking in different countries or ecosystems. Different countries Chile, Slovenia, US Denmark and Netherlands are discussed – with preference and recommendation to the Danish system and process - a self-regulatory regime on net neutrality which was in place for 5 years until the EU rules were implemented.

Chapter 5 is very long, detailed and could by advantage be cut or some parts be put in appendix. Having said that several of the topics and discussion are very important. The different challenges and views to net neutrality are detailed investigated, presented and discussed in the thesis amongst others as shown in the table

| |
|--|
| Discuss Main Topics related to neutrality |
| Critique of net neutrality |
| Critique of van Schewick’s Architecture and Innovation |
| Engineering concepts in conflict with net neutrality |
| What can be said about the other parts of the value chain with significant market power, e.g. apps, platforms, operating systems |
| Other assumptions of net neutrality |



Which open internet framework is best for mobile app innovation? is discussed in the last part of chapter 5 stressing that regulators are expert, independent, and competent when it comes to net neutrality and the Role of transnational activism in net neutrality policy. Many arguments and discussions are presented – but in a research perspective it is very difficult to verify these messages – to some extent political arguments. However, it must be said that a lot of qualitative data and interviews e.g. are presented to back up the main argument.

The discussion ends up with a discussion on why is there not more empirical research and investigation of net neutrality and its stated link to net neutrality?

Summing up on chapter 5 leaves the reader with a lack of discussion on phd process, learning, challenges and further research proposals.

Chapter 6 Conclusion

In this final chapter, the author summarizes the main findings and the implications. The structure of the chapter is consisting of two sections, where the first section (6.1.) summarizes the findings related to the main research question and section 6.2. deals with the implications for rulemaking.

Section 6.1. main contributions of the thesis are described and summarized. The thesis investigated the degree to which net neutrality rules stimulates the development of mobile applications and finds some correlation between countries with soft net neutrality rules and mobile app innovation. The thesis has made two overall contributions:

1. The thesis has supplemented the academic literature with an empirical investigation of net neutrality.
2. Highlighting the lack of measurement tied to innovation objectives of net neutrality policy.

Section 6.2. discusses the implications for rulemaking in four different options that rule makes can follow. The author states that (p. 438) that the Danish case provides inspiration of multi-party cooperation and vision for a digital society.

In summary, chapter 6 is an important chapter condensing the findings, recommending to rule makers and contributing to our knowledge with new understandings of net neutrality.

Concluding remarks

Roslyn Layton has chosen an important and relevant topic for her PhD-study. The overall aim of the thesis is to contribute to our understanding of how net neutrality rules can implicate innovation within the development of mobile apps.

The thesis holds overall an interesting finding in respect to the RQ and further research. The research holistically addresses many areas and many discussions on the RQ (net neutrality, innovation, rulemaking, etc.) which seem to have implied some shortcoming, e.g., limited theoretical depth of business innovation, interrelations on innovations theories related to the RQ. – and not least a final “shape” of the thesis.

The author demonstrates her capabilities to summarize existing literature and summaries the literature in relation to net neutrality.

In relation to the empirical part, the author reflects well on the methods on generating and collecting the data. Furthermore, the analysis conducted in the different countries are very well documented. The author demonstrates that she is capable of collecting and analyzing data in a scientific way.

Essentially the thesis contributes to the identification and deeper understanding of how rules in a given country potentially can stimulate innovation in that country’s mobile app ecosystem. However, the thesis does not present a theoretical model of the innovation process and its interaction with regulatory rules. Instead, it investigates the



proposition empirically by examining data from a cross-national panel data set with measures of the development of mobile data applications (the dependent variable) and measures that characterize the NN rules framework.

The thesis represents however a body of work that the committee deems worthy of a doctoral dissertation especially in amount and in quality. The author has carried out a research project using appropriate scientific theories and methods as a level meeting international standards for a PhD degree. The thesis demonstrates her competence in carrying out and presenting all parts of the work: research questions, review of relevant literature, documenting the research methodology, presenting findings, and discussing the findings and conclusions. In addition, enough evidence has been provided in the written material to defend the claims made by the candidate.

Oral presentation and discussion

At the defense, Roslyn Layton presented the main findings of the thesis in a well-structured lecture that responded importantly to questions raised by the committee in their original evaluation of the written thesis. Specifically, Roslyn also presented her thoughts on the lecture topic provided by the committee; *"Based on the review of the innovation literature and your findings, present and discuss a theoretical model of the innovation process and its interaction with regulatory rules"*. The Committee members commented on the thesis and asked questions conserving the relevance of the problem, the role of the innovation literature, how can apps be a proxy for innovation and the empirical strategy. Roslyn Layton provided a good and spirited defense for her thesis and explored the areas being questioned. Demonstrating a presentation style and command of the facts that was accessible both to a generalist audience and to specialist's with detailed knowledge of the policy history in this space. Her personal experience in engaging these debates both in multiple policy forums and through prior experience in the industry provided significant strength.

Conclusion

The thesis contributes valuable knowledge in the field of Net neutrality or "Open Internet" rulemaking necessary for Mobile App application innovation. Roslyn Layton has successfully carried out and defended an important research project using appropriate scientific theories and methods. The thesis demonstrates her competence in carrying out and presenting all parts of the work: research questions, review of relevant literature, documenting the research methodology, presenting findings, and discussing the findings and conclusions. In addition, enough evidence has been provided in the written thesis and presentation material to defend her principal claims.

Based on the thesis report and the oral defense, the committee unanimously recommends, that Roslyn Layton is awarded the PhD degree.

Date: 31.1.2017

Professor William Lehr

Professor Peter Lindgren

Professor Reimer Ivang

(chairman)

**Fortegnelse over bedømmelsesudvalg til
stilling 60118 - Professor in Machine Learning and Speech Processing ved Institut for Elektroniske
Systemer**

Navn: Professor Søren Bech
Arbejdssted: Department of Electronic Systems, AAU
E-mail: sbe@es.aau.dk

Navn: Professor John H. L. Hansen
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Navn: Professor Isabel Maria Martins Trancoso
Arbejdssted: Instituto de Engenharia de Sistemas e Computadores, Lisabon, Portugal
E-mail: isabel.trancoso@inesc-id.pt

Akademisk Råd har taget stilling til, at medlemmer af bedømmelsesudvalget er sagkyndige inden for stillingsområdet på et niveau, der mindst svarer til det, der forudsættes for stillingen, dog ikke under lektorniveau.

Professor in Machine Learning and Speech Processing (60118)

Position No.
60118

At the Technical Faculty of IT and Design, Department of Electronic Systems a position as Professor in Machine Learning and Speech Processing is open for appointment from July 1, 2017 or soon hereafter.

The Department of Electronic Systems is one of the largest departments at Aalborg University with a total of more than 250 employees. The department is internationally recognized in particular for its contributions within Information and Communication Technology (ICT). The research and teaching of the Department of Electronic Systems focus on electronic engineering and the activity areas are organized in the sections: Antennas, Propagation and Radio Networking section (APNet), Automation Control section (Control), Signal and Information Processing section (SIP), Wireless Communication Networks section (WCN) and Communication, Media and Information technologies (CMI).

The department focuses on maintaining a close interplay with the university's surroundings - locally, nationally and internationally – as well as producing unique basic research and educating talented and creative engineers. The department collaborates with leading ICT researchers all over the world.

Job description

The Signal and Information Processing section seeks to appoint a full-time Professor who has research qualifications at the doctoral level within Machine Learning and Speech Processing. In particular, the position requires internationally recognized research experience in the following engineering domains:

- Machine learning
- Pattern recognition
- Deep neural networks
- Speech recognition and -enhancement
- Speaker identification and verification
- Noise-robust speech processing
- Voice activity detection
- Multimodal signal processing
- Social robotics
- Human-machine interaction

The position requires experience and involvement in management of research projects, supervision of PhD students and post-docs, as well as maintenance of and cooperation in national and international academic networks. The Professor is expected to conduct dissemination of research results to and initiate cooperation with industry in order to strengthen our relations with local, national, and international private company partners.

Furthermore, the position involves preparation of research funding applications as well as teaching and assessment of undergraduate and graduate students. Primarily, the teaching will be in domains such as Machine Learning and Signal Processing, but may also be conducted in other study programs at the University.

Further professional information can be obtained from Assoc. Professor Peter Koch, email pk@es.aau.dk or phone (+45) 9940 8696.

Qualification requirements:

The successful applicant can demonstrate a documented high level of original scientific production at an international level, including proven further development of the research area in question. An assessment of the candidate's undertaking of research management and/or other possible management functions will also be taken into account. In addition the applicant is expected to have the qualifications required for undertaking teaching responsibilities. Special contributions to and development of educational and teaching related areas will be considered in the overall assessment.

The application must contain the following:

- A motivated text wherein the reasons for applying, qualifications in relation to the position, and intentions and visions for the position are stated.
- A current curriculum vitae.
- Copies of relevant diplomas (Master of Science and PhD).
- Scientific qualifications. A complete list of publications must be attached with an indication of the works the applicant wishes to be considered. You may attach up to 10 publications.
- Teaching qualifications described in the teaching portfolio. If this is not enclosed the applicant must include an explanation for its absence.
- Dissemination qualifications, including participation on committees or boards, participation in organisations and the like.
- Additional qualifications in relation to the position.

- [References/recommendations](#).
- Personal data.

The applications are only to be submitted online by using the "Apply online" button below

An assessment committee will assess all candidates.

For further information concerning the application procedure please contact Anne Christoffersen by mail hr-tech@adm.aau.dk or phone (+45) 9940 9680.

Information regarding guidelines, ministerial circular in force, teaching portfolio and procedures can be seen [here](#).

Workplace
Aalborg

Agreement

Appointment and salary acc. to the agreement between the Ministry of Finance and the Danish Confederation of professional Associations (AC) on Academics in the State. Employment as Professor is in accordance with a classified position on scale 37. In addition, a pensionable increment will be given.

Deadline

09/04/2017

[Apply online](#)

Aalborg University (AAU) conducts teaching and research to the highest level in the fields of humanities, engineering, and natural, health, and social sciences.



John H. L. Hansen, Ph.D.

Associate Dean for Research, Erik Jonsson School of Engineering and Computer Science
 Professor of Electrical Engineering, Erik Jonsson School of Engineering and Computer Science
 Professor in School of Behavioral and Brain Sciences (Speech & Hearing)
 Distinguished University Endowed Chair in Telecommunications Engineering
 972-883-2910 john.hansen@utdallas.edu

Biography

John H.L. Hansen (IEEE: S'81-M'82-SM'93-F'07) was born in Plainfield, New Jersey. He received the B.S.E.E. degree with highest honors from Rutgers University, New Brunswick, N.J. in 1982, and the M.S. and Ph.D. degrees in Electrical Engineering from the Georgia Institute of Technology, Atlanta, Georgia, in 1983 and 1988, respectively.

He joined University of Texas at Dallas (UTDallas), Erik Jonsson School of Engineering and Computer Science in the fall of 2005, where he is presently serving as Jonsson School Associate Dean for Research, as well as Professor of Electrical Engineering and also holds the Distinguished University Chair in Telecommunications Engineering. He previously served as Department Head of Electrical Engineering from Aug. 2005 – Dec. 2012, overseeing a +4x increase in research expenditures (\$4.5M to \$22.3M) with a 20% increase in enrollment along with hiring 18 new T/TT faculty, growing [University of Texas at Dallas \(UTDallas\)](#) to be the 8th largest EE program from ASEE rankings in terms of degrees awarded. He also holds a joint appointment as Professor in the School of Behavioral and Brain Sciences (Speech & Hearing), as well as the University Distinguished Endowed Chair in Telecommunications Engineering. At UTDallas, he established the Center for Robust Speech Systems (CRSS), which is focused on interdisciplinary research in speech processing, hearing sciences, and language technologies. From 1999 until 2005, he was with the University of Colorado at Boulder where he served as Department Chairman and Professor in the [Department of Speech, Language & Hearing Sciences \(Univ. of Colorado-Boulder\)](#). While at CU-Boulder, he held a joint appointment as Professor in the Department of Electrical & Computer Engineering. In 1988, he established the Robust Speech Processing Laboratory (RSPL) at Duke Univ., and served as Coordinator for the Robust Speech Processing Group at CSLR. He was co-founder of the Center for Speech and Language Research (CSLR), where he served as Associate Director from 1999-2003. He was a faculty member at [Duke Univ.](#), Department of Electrical Engineering and Department of Biomedical Engineering for eleven years before joining [Univ. of Colorado](#) in 1999. Previously, he was employed by the RCA Solid State Division, Somerville, N.J., (1981-82), and Dranetz Engineering Laboratories, Edison, N.J., (1978-81). He has served as a technical consultant to industry and the U.S. Government, including AT&T Bell Laboratories, I.B.M., Texas Instruments, SPEETRA, Infoture, LENA Foundation, Li Technologies, Sparta, ASEC, SignalScape, Hughes Research Lab, VeriVoice, and DOD in the areas of voice communications, wireless telephony, robust speech recognition, forensic speech/speaker analysis, and human-computer interaction.

His research interests span the areas of digital speech processing, analysis and modeling of speech and speaker traits, speech pathology and voice assessment, speech enhancement and feature estimation in noise, robust speech recognition with current emphasis on robust recognition and training methods for spoken document retrieval and recognition in accent, noise, stress, and Lombard effect, and speech feature enhancement in hands-free environments for human-computer interaction.

Dr. Hansen is the author/coauthor of 482 publications including 111 journal and 338 conference papers, 11 books, and 22 book chapters in the field of speech processing and language technology. He is coauthor of the textbook [Discrete-Time Processing of Speech Signals](#), (Prentice-Hall, 1993 [1st Edition], [IEEE Press, 2000 \[2nd Edition\]](#)), co-editor of *DSP for In-Vehicle and Mobile Systems* (Springer, 2004), *Advances for In-Vehicle and Mobile Systems: Challenges for International Standards* (Springer, 2006), *In-Vehicle Corpus and Signal Processing for Driver Behavior* (Springer, 2008), and lead author of the text "The Impact of Speech Under 'Stress' on Military Speech Technology," published by NATO Research & Technology Organization RTO-TR-10, AC/323(IST)TP/5 IST/TG-01, March 2000 ([PDF \(1.3MB\)](#)).

He has been named [IEEE](#) Fellow (2007) for contributions to "Robust Speech Recognition in Stress and Noise," named Inter. Speech Communication Association (ISCA) Fellow (2010) for contributions on "Research for Speech Processing of Signals under Adverse Conditions," and received The Acoustical Society of America's 25 Year Award (2010) – in recognition of his service, contributions, and membership to the Acoustical Society of America. He was the recipient of a [Whitaker Foundation Biomedical Research Award](#) in 1993, the *National Science Foundation's Research Initiation Award* in 1990, and has been named a *Lilly Foundation Teaching Fellow* for "Contributions to the Advancement of Engineering Education." He has supervised 62 PhD/MS thesis candidates (29 PhD, 32 MS/MA), and was the recipient of The 2005 University of Colorado Teacher of the Year Recognition Award as voted on by the student body.

He is currently serving as Past TC-Chair and Member of the IEEE Signal Processing Society: Speech-Language Processing Technical Committee (2005-08; 2010-13; previously elected and served as IEEE SLTC Technical Chairman for 2011-2013), and elected ISCA Distinguished Lecturer (2012/2013). He has also served as member of the IEEE Signal Processing Society Educational Technical Committee (2005-08; 2008-10). He has served as the Technical Advisor to the U.S. Delegate for NATO (IST/TG-01: Research Study Group on Speech Processing, 1996-1998). In 2004, he was selected as an IEEE Signal Processing Society Distinguished Lecturer for 2005-2006. He has also served as Chairman for the IEEE Communications & Signal Processing Society, North Carolina Section (1992-94), previous Advisor for the Duke University IEEE Student Branch (1990-97), an invited tutorial speaker for IEEE ICASSP-95 and the NATO Speech

- [CRSS: Center for Robust Speech Systems \(Speech & Speaker Modeling Group\)](#)
- [Research - Current PhD/MS Thesis Students](#)
- [Recent Talks](#)
- [Resume \(Dec. 2013\)](#) - (includes links to CRSS publications)
- [Personal Web Page/Information](#)

Under Stress Research Workshop (Lisbon, Portugal), [Tutorials Chairman](#) for [ICASSP-96](#): Inter. Conf. on Acoustics, Speech, and Signal Processing, and served as [Associate Editor](#) for [IEEE Signal Processing Letters](#) (1999-2001) and served as [Associate Editor](#) for [IEEE Transactions on Speech & Audio Processing](#) (1992-98). He has also served as guest editor of the Oct. 1994 special issue on Robust Speech Recognition for IEEE Trans. Speech & Audio Proc., and organized the [Special Session: Speech Processing under "Stress"](#) for IEEE ICASSP-99, Phoenix, Az, March 1999. He organized and served as General Chair for [INTERSPEECH-2002/ICSLP-2002: Inter. Conf. Spoken Language Processing](#), held in Denver, CO in Sept. 2002, and Co-Organizer and Technical Program Chair for [IEEE ICASSP-2010](#), Dallas, TX, March 2010.

CURRENT GRADUATE THESIS SUPERVISION: (active)

Ph.D. Thesis (active)

- Keith Godin, EE - Topic: Speech Analysis and Speaker Recognition in Adverse Noisy or Cognitive/Physical Stress conditions
- Omid Sadjadi, EE - Topic: Speaker Normalization for Robust Speech Systems; Speech Activity Detection; Speaker ID
- Gang Liu, EE - Topic: Language/Dialect and Speaker Recognition - advancements in back-end fusion (LID/DID, and SID)
- Mahnoosh Mehrabani, EE - Topic: Dialect Classification - Train/Test Data Purity Assessment; Impact of Singing/Speaking on SID/LID
- Ali Ziaei, EE - Topic: Speaker Modeling for Massive Data Corpora: Impact of Real Acoustic Environments; Prof-Life-Log Project
- Navid Shokouhi, EE - Topic: Co-Channel Speaker Modeling, Analysis, and Compensation.
- Abhinav Misra, EE - Topic: Cross-Language based Speaker analysis and recognition
- Lakshmesh Kaushik, EE - Topic: Robust Speech Recognition - Keyword Recognition
- Qian Zhang, EE - Topic: Open-Set Language Identification
- Shabnam Ghaffarzadegan, EE - Topic: Distance based speech processing and recognition for Whisper based speech..
- Mahdad Mirsamadi, EE - Topic: Single Mic, Dual Mic, and Microphone array processing for Robust ASR
- Chengzhu Yu, EE - Topic: Speaker ID for subjects in diverse settings - (modeling speakers from Earth to the Moon)
- Yang Zheng, EE - Topic: Multi-sensor based signal processing for In-Vehicle Driver Distraction
- Dongmei Wang, EE - Topic: Single channel speech enhancement for cochlear implant users.
- Hua Xing, EE - Topic: Statistical based frequency shift detection schemes for improved speech intelligibility; Bandwidth expansion
- Jaewook Lee, EE - Topic: voiced/unvoiced detection in noise and reverberation for improve speech intelligibility

M.S. Thesis (active)

- Allen Stauffer, EE - Topic: Speech Analysis and Modeling for Speaker ID - detection of nonlinear distortion and normalization

CURRENT ASSISTANT RESEARCH PROFESSORS: (active)

- Dr. Hynek Boril (2007-present) CRSS - Univ. of Texas - Dallas
- Dr. Abhijeet Sangwan (2009-present) CRSS - Univ. of Texas - Dallas

CURRENT RESEARCH ASSOCIATES/POST-DOCTORIAL RESEARCHERS: (active)

- Dr. Seong-Jun Hahn (2013-present) CRSS - Univ. of Texas - Dallas
- Dr. Taufiq Hasan Al Banna (2013-present) CRSS - Univ. of Texas - Dallas

CURRENT LAB MANAGER - Cochlear Implant Group (CRSS)

- Mr. Hussnain Ali (2012-present) - overseeing logistics for Cochlear Implant signal processing group

CURRENT RESEARCH ASSOCIATES/POST-DOCTORIAL RESEARCHERS: (active)

- Dr. Oldooz Hazrati: (2012-present) Cochlear Implant Group (CRSS) - Univ. of Texas - Dallas
- Dr. Nirmal Srinivasan: (2012-present) Cochlear Implant Group (CRSS) - Univ. of Texas - Dallas
- Dr. Feng Hong (2012-present) Cochlear Implant Group (CRSS) - Univ. of Texas - Dallas

PAST SUPERVISION

GRADUATE THESIS SUPERVISION: (completed)

2013

- Dr. Amardeep Sathyanarayana, Ph.D.-ECE - CRSS 2013 (CRSS, Univ. of Texas at Dallas; employe at Texas Instruments, Dallas TX)
- Dr. Taufiq Hasan Al Banna, Ph.D.-ECE - CRSS 2013 (CRSS, Univ. of Texas at Dallas; employed at CRSS - UTDallas)
- Dr. Nima Yousefian, Ph.D.-ECE - CRSS - Cochlear Implant Group 2013 [for the late Prof. Philip Loizou] (CRSS, Univ. of Texas at Dallas; employed at Cambridge Silicon Radio, Michigan, USA) [Dr. Philip Loizou's student]
- Ms. Keri Williams (formerly Sullivan), M.S.-EE -CRSS 2013, (CRSS, Univ. of Texas at Dallas)

2012

- Dr. Oldooz Hazrati, Ph.D.-ECE - CRSS - Cochlear Implant Group 2012 [for the late Prof. Philip Loizou] (CRSS, Univ. of Texas at Dallas; employed as Post-doctorial Researcher, Cochlear Implant Group, Dept. of Electrical Engineering) [Dr. Philip Loizou's student]
- Dr. Jun-Won Suh, Ph.D.-ECE - CRSS 2012(CRSS, Univ. of Texas at Dallas; employed at VLingo, Inc.)
- Dr. Chi (Leo) Zhang, Ph.D.-ECE - CRSS 2012(CRSS, Univ. of Texas at Dallas; employed at Carneige Speech, Inc.)
- Mr. Seckin Uluskan, M.S.-EE -CRSS 2012, (CRSS, Univ. of Texas at Dallas)

2011

- Dr. Xing Fan, Ph.D.-ECE - CRSS 2011(CRSS, Univ. of Texas at Dallas; employed at NUANCE, Inc.)
- Dr. Yun Lei, Ph.D.-ECE - CRSS 2011(CRSS, Univ. of Texas at Dallas; employed at SRI International)
- Dr. Tao Yu, Ph.D.-ECE - CRSS 2011 (CRSS, Univ. of Texas at Dallas; employed at Cambridge Silicon Radio, Michigan, USA) (EE - Topic: Speech System Normalization via Array Processing for Noise and Channel Effects).
- Mr. Freddy William, M.S.-EE -CRSS 2011, (CRSS, Univ. of Texas at Dallas)
- Mr. Amritheshwar Singh, M.S.-CS -CRSS 2011, (CRSS, Univ. of Texas at Dallas; employed as a CRSS staff programmer - supporting CRSS engagement with SPEETRA, Inc)

2010

- Ms. Xuebo(Jamie) Yang, M.S.-EE -CRSS 2010, EE - Topic: Multi-Modal In-Vehicle Modeling for Driver Behavior (CRSS, Univ. of Texas at Dallas, employed as design/signal processing engineer at Enseo Corp., Plano, Texas)

2009

- Dr. Murat Akbacak, Ph.D.-ECE - CRSS 2009 (Univ. of Colorado at Boulder; employed at Microsoft; previously at SRI International)
- Dr. Sanjay Patil, Ph.D.-EE -CRSS 2009 (CRSS, Univ. of Texas at Dallas, employed as Department Chairman of Electrical Engineering, Pune, India)
- Dr. Abhijeet Sangwan, Ph.D.-EE -CRSS 2009 (CRSS, Univ. of Texas at Dallas, Employed as Post-Doctorial Researcher CRSS-UTD)
- Dr. Nitish Krishnamurthy, Ph.D.-EE -CRSS 2009 (CRSS, Univ. of Texas at Dallas, Employed at Texas Instruments)
- Mr. Keith Godin, M.S.-EE -CRSS 2009 (CRSS, Univ. of Texas at Dallas; continued on for Ph.D. CRSS-UTD (Erik Jonsson School Scholar)
- Mr. Abhishek Kumar, M.S.-EE -CRSS 2009 (CRSS, Univ. of Texas at Dallas; continued on for Ph.D. in machine learning - Univ. of Utah)
- Ms. Mahnoosh Mehrabani, M.S.-EE -CRSS 2009 (CRSS, Univ. of Texas at Dallas; continued on for Ph.D. CRSS-UTD)
- 2008
- Mr. Amardeep Sathyanarayana, M.S.-EE -CRSS 2008 (CRSS, Univ. of Texas at Dallas; internship at NEC; internship at Texas Instruments; Employed at KPIT/Ford Motor Corp.)
- Mr. Aravind Chandrasekaran, M.S.-ECE-CRSS 2008 (CRSS, Univ. of Texas at Dallas)
- Mr. Rahul Chitturi, M.S.-CS-CRSS 2008 (CRSS, Univ. of Texas at Dallas, Employed at EBAY)
- 2007
- Mr. Matthew R. Leonard, M.S.-EE -CRSS 2007 (CRSS, Univ. of Texas at Dallas, Univ. of Colorado Boulder; continued on for PhD, CRSS-UTD)
- Mr. Vinod Prakash, M.S.-ECE-CRSS 2007 (CRSS, Univ. of Texas at Dallas, Univ. of Colorado Boulder; Employed at Microsoft Research, Seattle, WA)
- Ms. Vaishnevi Varadarajan, M.S.-ECE-CRSS 2007 (CRSS, Univ. of Texas at Dallas, Univ. of Colorado Boulder; Intern at Qualcomm, Employed at Caterpillar)
- Mr. Amit Das, M.S.-ECE-CRSS 2007 (CRSS, Univ. of Texas at Dallas, Univ. of Colorado Boulder; Employed at Qualcomm Communications)
- Mr. Syed Moosa Hassan, M.S.-ITP-CRSS 2007 (CRSS, Univ. of Texas at Dallas, Employed at Qualcomm Communications)
- 2006
- Mr. Nitish Murthy, M.S.-EE -CRSS 2006 (CRSS; Univ. of Texas at Dallas)
- Dr. Rongqing Huang, Ph.D.-ECE-CRSS 2006 (RSPG-CRSS; Univ. of Texas at Dallas, Univ. of Colorado Boulder; Employed at Nuance Communicatoin)
- 2005
- Dr. Ayako Ikeno, Ph.D.-Linguistics/Cognitive Sciences-RSPG 2005 (RSPG-CSLR,Univ. of Colorado Boulder; Employed at CRSS - UTD)
- Dr. Sharmistha (Das) Gray, Ph.D.-SLHS-RSPG 2005 (RSPG-CSLR,Univ. of Colorado Boulder; Employed at Infoture)
- Dr. Xianxian Zhang, Ph.D.-ECE-RSPG 2005 (RSPG-CSLR,Univ. of Colorado Boulder; Employed at Texas Instruments)
- Dr. Umit Yapanel, Ph.D.-ECE-RSPG 2005 (RSPG-CSLR,Univ. of Colorado Boulder; Employed at Infoture, Inc.)
- 2004
- Ms. Sepideh Baghaii, M.S. -ECE-RSPG 2004 (RSPG-CSLR, Univ. of Colorado Boulder)
- Dr. Pongtep Angkitittrakul, Ph.D.-ECE-RSPG 2004 (RSPG-CSLR,Univ. of Colorado Boulder; Employed at Eliza, Inc.)
- Ms. Shonan Noronha, M.S. -ECE-RSPG 2004 (RSPG-CSLR, Univ. of Colorado Boulder; Employed at Tucker-Davis Industries)
- 2003
- Mr. Rongqing Huang, M.S. -ECE-RSPG 2003 (RSPG-CSLR, Univ. of Colorado Boulder)
- Mr. Ajay Natarajan, M.S. -ECE-RSPG 2003 (RSPG-CSLR, Univ. of Colorado Boulder; Employed at VoiceLog)
- Mr. Murat Akbacak, M.S. -ECE-RSPG 2003 (RSPG-CSLR,Univ. of Colorado Boulder)
- Mr. Mandar Rahurkar, M.S. -ECE-RSPG 2003 (RSPG-CSLR,Univ. of Colorado Boulder)
- Dr. Bowen Zhou, Ph.D.-ECE-RSPG 2003 (RSPG-CSLR,Univ. of Colorado Boulder; employed at IBM-Yorktown Heights)
- 2002
- Mr. Vinod Radhakrishnan, M.S.-ECE-RSPG 2002 (RSPG-CSLR, Univ. of Colorado Boulder)
- 2001
- Ms. Angie Chevalier, M.A.-SLHS-RSPG 2001 (Audiology)
- Dr. Ruhi Sarikaya, Ph.D.-ECE-RSPL 2001 (RSPG-CSLR, Univ. of Colorado Boulder; employed at IBM-Yorktown Heights)
- 2000
- Dr. David Chappell, Ph.D.-ECE-RSPL 2000 (employed at North Carolina State Univ.; LipSinc)
- 1999
- Dr. Guogun Zhou, Ph.D.-ECE-RSPL 1999 (RSPG-CSLR, Univ. of Colorado Boulder; employed at INTEL)
- 1998
- Dr. Bryan L. Pellom, Ph.D.-ECE-RSPL 1998 (RSPG-CSLR, employed at Univ. of Colorado Boulder)
- 1996
- Dr. Brian D. Womack, Ph.D.-ECE-RSPL 1996 (employed at Comprehensive Technologies, Philips Digital Video Systems)
- Dr. Sahar E. Bou-Ghazale, Ph.D.-ECE-RSPL 1996 (employed at Duke University; Rockwell International; Conexant Technologies)
- Dr. Levent M. Arslan, Ph.D.-ECE-RSPL 1996 (employed at Texas Instruments; Entropic Research Lab; Bogazici University)
- Mr. Bryan Pellom, M.S.-ECE-RSPL 1996 (continued at RSPL for PhD)
- Mr. Eric Wallen, M.S.-ECE-RSPL 1996 (I.B.M.; Sparta)
- 1995
- Dr. Lilitiana Gavidia-Ceballos, Ph.D.-BME-RSPL 1995 (Simon Bolivar University, Venezuela)
- 1994
- Dr. Doug A. Cairns, Ph.D.-ECE-RSPL 1994 (I.B.M.; Ericsson Wireless)
- Mr. Tony L. Yao, M.S.-ECE-RSPL 1994 (Phillips Electronics)
- 1993

- Mr. Levent M. Arslan, M.S.-ECE-RSPL 1993 (continued at RSPL for PhD)
 - Ms. Sahar E. Bou-Ghazale, M.S.-ECE-RSPL 1993 (continued at RSPL for PhD)
 - Dr. S. Nandkumar, Ph.D.-ECE-RSPL 1993 (Lockheed-Martin; Hughes Networking Systems; FDA US Government)
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- 1992
- Mr. Greg Clary, M.S.-ECE-RSPL 1992 (I.B.M., Yorktown Heights)
- 1991
- Mr. Doug Cairns, M.S.-ECE-RSPL 1991 (I.B.M., continued at RSPL for PhD)
 - Mr. Oscar N. Bria, M.S.-ECE-RSPL 1991 (instructor, University of Argentina)

POST-DOCTORIAL RESEARCHERS:

- Dr. Pongtep Angkitrakul (2012-2013) CRSS - Univ. of Texas - Dallas (Employed at Bosch, Inc.; San Jose, CA)
- Dr. Wooil Kim (2005-2012) [2007: Promoted to Assistant Research Professor] CRSS - Univ. of Texas - Dallas (Employed as Assistant Prof., Incheon University, Korea)
- Dr. Pinar Boyraz (2008-2010) CRSS - Univ. of Texas - Dallas (Employed as Assistant Prof., Istanbul Technical University, Turkey)
- Dr. Ayako Ikeno (2005-2008) [2006-2007: CRSS Laboratory Manager] CRSS - Univ. of Texas - Dallas
- Dr. Pongtep Angkitrakul (2006-2008) CRSS - Univ. of Texas - Dallas (Employed at Toyota Central R&D)
- Dr. Louisa Busca Grisoni (2004) RSPG-CSLR - Univ. of Colorado - Boulder (Employed at Starkey Technologies)
- Dr. Gongun Li (2003) RSPG-CSLR - Univ. of Colorado - Boulder (Employed at Univ. of Maryland - Baltimore County)
- Dr. Sahar E. Bou-Ghazale (1997) RSPL - Duke Univ. (Employed at Conexant)

COLLABORATORS & VISITORS:

- Mr. Nicolai Bæk Thomsen:(2013) [Denmark] (Aalborg University, Aalborg, Denmark)
- Mr. Sulyman Amuda: (2009/10) [Nigeria]
- Mr. Tristen Kleinschmidt: (2009) [Australia] (Queensland Univ. of Technology, Australia)
- Mr. Matteo Petracca: (2007; 2006) [Italy]
- Mr. Alessandro Rinotti (2007) [Italy]
- Dr. Kazuya Takeda (Nagoya University, Japan)
- Dr. H. Abut (Sabanci University, Turkey)
- Dr. Alfonso Ortega (University of Zaragoza, Spain)
- Mr. Nicolas Morales:(2004/05, 2005/06) [Spain] (HCTLab-Escuela Politécnica Superior, Univ. Autónoma, Madrid, Spain)
- Mr. Karsten Vandborg Sørensen:(2005) [Denmark] (Aalborg University, Aalborg, Denmark)
- Dr. Tom Backstrom: (2005) [Finland] (Helsinki University of Technology, Helsinki, Finland)
- Dr. Louisa Busca Grisoni: (2004) [Switzerland]
- Dr. Mikko Kurimo: (2003) [Finland] (Helsinki University of Technology, Helsinki, Finland)
- Mr. Jesper Jensen: (2001) [Denmark](Aalborg University, Aalborg, Denmark)
- Mr. Murat Akbacak: (2000) [Turkey]
- Dr. James F. Kaiser (Bellcore & AT&T Bell Labs, New Jersey; Duke University, Durham NC)
- Dr. James Meyerhoff (Walter Reed Army Institute of Research, Maryland)



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Isabel Trancoso

From L²F

Isabel Trancoso received the Licenciado, Mestre, Doutor and Agregado degrees in Electrical and Computer Engineering from Instituto Superior Técnico (<http://www.ist.utl.pt/>), Lisbon, Portugal, in 1979, 1984, 1987 and 2002, respectively. She has been a lecturer at this University since 1979, having coordinated the EEC course for 6 years. She is currently a Full Professor, teaching speech processing courses. She is the President of the Electrical and Computer Engineering Department. She is also a senior researcher at INESC ID Lisbon (<http://www.inesc-id.pt/>), having launched the speech processing group, now restructured as L²F, in 1990. Her first research topic was medium-to-low bit rate speech coding. From October 1984 through June 1985, she worked on this topic at AT&T Bell Laboratories, Murray Hill, New Jersey. After her PhD, her research focus shifted to speech synthesis and recognition, with a special emphasis on tools and resources for the Portuguese language. Her current research scope is much broader, encompassing many areas in spoken language processing. Her recent PhD advising activities cover microblog translation, semi-supervised machine learning for statistical machine translation, privacy preserving speech mining, lexical and prosodic entrainment in spoken dialogues and disfluency detection in spontaneous speech. She was a member of the IŞCA (International Speech Communication Association) Board (1993-1998), the IEEE Speech Technical Committee (since 1999) and the Permanent Council for the Organization of the International Conferences on Spoken Language Processing (since 1998). She was elected Editor in Chief of the IEEE Transactions on Speech and Audio Processing (2003-2005), Member-at-Large of the IEEE (<http://www.ieee.org/>) Signal Processing Society (<http://www.signalprocessingsociety.org/>) Board of Governors (2006-2008), Vice-President of ISCA (<http://www.isca-speech.org/>) (2005-2007) and President of ISCA (<http://www.isca-speech.org/>) (2007-2011). She chaired the Organizing Committee of the INTERSPEECH'2005 Conference (<http://www.interspeech2005.org/>) that took place in September 2005, in Lisbon. She also chaired the IEEE James Flanagan Award Committee (2013-2014). She currently integrates the ISCA Advisory Council, the ISCA Distinguished Lecturer Selection Committee (Chair), the ELRA Board (Vice-President), the IEEE Fellows Committee, and the IEEE Publication Services and Products Board



Strategic Planning Committee. She received the 2009 IEEE Signal Processing Society Meritorious Service Award. She was elevated to IEEE Fellow in 2011, and to ISCA Fellow in 2014.

Research Interests

- Human Language Technologies

Teaching Activities (at IST (<http://www.ist.utl.pt>))

- Former President of the Department of Electrical and Computer Engineering



(</wiki/index.php/File:Istlogo.gif>)

(<https://fenix.tecnico.ulisboa.pt/departamentos/deec>)

- Postgraduate Course: Advanced Spoken Language Processing Seminar (<https://fenix.tecnico.ulisboa.pt/disciplinas/SAPF/2014-2015/1-semester>)
- Graduate Course: Spoken Language Processing (<https://fenix.tecnico.ulisboa.pt/disciplinas/PF3645111326/2016-2017/2-semester>)
- Undergraduate Course: Programming (<https://fenix.tecnico.ulisboa.pt/disciplinas/FP179/2016-2017/1-semester>)
- Former Coordinator of EEC Undergraduate and Postgraduate Courses

Editorial Activities

- Editor-in-Chief IEEE Trans. on Speech and Audio Processing



(</wiki/index.php/File:ieee.png>)

(<http://www.signalprocessingsociety.org/publications/periodicals/taslp/>) (2003-2005)

- Guest Editor of Special Issue of the Speech Communication journal on Iberian Languages, November-December 2008
- Guest Editor of IEEE/ACM T-ASL Special Issue on Continuous Space and Related Methods in NLP
- Member of the IEEE Signal Processing Magazine Editorial Board

Conference Organization

- 2005 Annual Conference of the International Speech Communication Association, Lisbon, Portugal, September 2005, Interspeech 2005 (<http://www.interspeech2005.org>) (Chair)
 (/wiki/index.php/File:Interspeech2005.jpg)
- 2009 IEEE Automatic Speech Recognition and Understanding Workshop, Merano, Italy, December 2009, ASRU 2009 (Publicity co-Chair)
- 2010 IEEE Workshop on Spoken Language Technology, Berkeley, California, USA, December 2010, SLT 2010 (<http://www.slt2010.org>), (Technical co-Chair)
- 2011 International Conference on Acoustics, Speech and Signal Processing, Prague, Czech Republic, May 2011, ICASSP 2011 (<http://www.icassp2011.com>) (Special Sessions co-Chair)
- 2015 Empirical Methods in Natural Language Processing, Lisbon, Portugal, September 2015, EMNLP2015 (<http://www.emnlp2015.org>), (Local Publicity Chair)
- 2016 IberSpeech, Lisbon, Portugal IberSPEECH 2016 (<https://iberspeech2016.inesc-id.pt/>) (Plenary Talks Chair)
- 2020 IEEE International Conference on Acoustics, Speech and Signal Processing ICASSP 2016, Barcelona, Spain, May 2020 (Plenary Sessions Co-Chair)

Other Activities

- President of International Speech Communication Association (ISCA) (<http://www.isca-speech.org>) (2007-2011)
 (/wiki/index.php/File:Isca_p.gif)
- Member of IEEE Signal Processing Society Board of Governors (<http://www.signalprocessingsociety.org/>) (2006-2008)
- Former member of IEEE Speech and Language Technical Committee (<http://www.signalprocessingsociety.org/technical-committees/list/sl-tc/>)
- Vice-President of the Board of European Language Resources Association (ELRA) (<http://www.elra.info>)

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Publications

Book Chapters

2016

- Helena Moniz, Fernando Batista, Ana Isabel Mata da Silva, Isabel Trancoso, **Intonational grammar in Ibero-Romance: Approaches across linguistic subfields** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/10692.pdf>), chapter Towards automatic language processing and intonational labeling in European Portuguese, Amsterdam: John Benjamins, September 2016

2011

- P. Sidiropoulos, V. Mezaris, I. Kompatsiaris, Hugo Meinedo, Miguel Bugalho, Isabel Trancoso, **Analysis, Retrieval and Delivery of Multimedia Contents** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/7164.pdf>), chapter On the use of audio events for improving video scene segmentation, N. Adami, A. Cavallaro, R. Leo, January 2011

2009

- Rui Pedro Batoreo Amaral, Isabel Trancoso, **Human Language Technology - Challenges of the Information Society**, chapter Exploring the Structure of Broadcast News for Topic Segmentation, Springer-Verlag, Revised selected papers of LTC 2007., December 2009

Edited Journals

2015

- Haizhou Li, Marcello Federico, Xiaodong He, Helen Meng, Isabel Trancoso, **Special Section on Continuous Space and Related Methods in Natural Language Processing** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/11167.pdf>), IEEE/ACM, Number 3, Volume 23, March 2015

International Journals

2016

- Wang Ling, Luís Marujo, Chris Dyer, Alan W. Black, Isabel Trancoso, **Mining Parallel Corpora From Sina Weibo and Twitter** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/11952.pdf>), MIT Press / ACL, vol. 42, doi: doi: 10.1162/COLI_a_00249, March 2016

2015

- Pedro Miguel Bacalhau Pascoal, Daniel Mendes, Diogo Gil Vieira Henriques, Isabel Trancoso, Alfredo Ferreira, **LS3D: LEGO Search Combining Speech and Stereoscopic 3D**, International Journal of Creative Interfaces and Computer Graphics (IJCICG), IGI Global, vol. 6, n. 2, pages 18-36, doi: 10.4018/IJCICG.2015070102, December 2015
- José Lopes, Maxine Eskenazi, Isabel Trancoso, **From rule-based to data-driven lexical entrainment models in spoken dialog systems** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/11007.pdf>), Computer Speech and Language, Elsevier, vol. 31, n. 1, pages 87-112, doi: 10.1016/j.csl.2014.11.007, May 2015
- José Portêlo, Bhiksha Raj, Isabel Trancoso, **Logsum using Garbled Circuits** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/11006.pdf>), PLoS One, vol. 10, n. 3, doi: 0.1371/journal.pone.0122236, March 2015

2014

- Helena Moniz, Fernando Batista, Ana Isabel Mata da Silva, Isabel Trancoso, **Speaking style effects in the production of disfluencies**, Speech Communication, vol. 65, pages 20-35, doi: 10.1016/j.specom.2014.05.004, November 2014
- Xiaodong Zeng, Derek F. Wong, Lidia S. Chao, Isabel Trancoso, Liangye He, Qiuping Huang, **Lexicon expansion for latent variable grammars**, Pattern Recognition Letters, Elsevier, vol. 42, pages 47-55, doi: <http://dx.doi.org/10.1016/j.patrec.2014.01.010>, February 2014

2013

- Alberto Abad, Annamaria Pompili, Angela Costa, Isabel Trancoso, José Fonseca, Gabriela Leal, Luisa Farrajota, Isabel P. Martins, **Automatic word naming recognition for an on-line aphasia treatment system**, Computer Speech and Language, Elsevier, vol. 27, n. 6, pages 1235-1248, doi: <http://dx.doi.org/10.1016/j.csl.2012.10.003>, September 2013
- Thomas Pellegrini, Rui Correia, Isabel Trancoso, Jorge Baptista, Nuno J. Mamede, Maxine Eskenazi, **ASR-based exercises for listening comprehension practice in European Portuguese**, Computer Speech and Language, doi: <http://dx.doi.org/10.1016/j.csl.2013.02.004>, February 2014

2012

- Fernando Batista, Helena Moniz, Isabel Trancoso, Nuno J. Mamede, Ana Isabel Mata da Silva, **Extending Automatic Transcripts in a Unified Data Representation towards a Prosodic-based Metadata Annotation and Evaluation** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/8827.pdf>), Journal of Speech Sciences, Luso-Brazilian Association of Speech Sciences, vol. 2, n. 2, December 2012
- Fernando Batista, Helena Moniz, Isabel Trancoso, Nuno J. Mamede, **Bilingual Experiments on Automatic Recovery of Capitalization and Punctuation of Automatic Speech Transcripts**, IEEE Transactions on Audio, Speech, and Language Processing, vol. 20, n. 2, pages 474 -- 485, doi: 10.1109/TASL.2011.2159594, February 2012

2011

- Hugo Meinedo, Isabel Trancoso, **Age and Gender Detection in the I-DASH Project** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/7554.pdf>), ACM Transactions on Speech and Language Processing, ACM, vol. 7, n. 4, pages 16, doi: 10.1145/1998384.1998387, August 2011
- Panagiotis Sidiropoulos, Vasileios Mezaris, Ioannis Kompatsiaris, Hugo Meinedo, Miguel Bugalho, Isabel Trancoso, **Temporal Video Segmentation to Scenes Using High-Level Audiovisual Features** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/7556.pdf>), IEEE Transactions on Circuits and Systems for Video Technology, IEEE, vol. 21, n. 8, pages 1163 - 1177 , doi: 10.1109/TCSVT.2011.2138830, August 2011

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- Nelson Neto, Carlos Patrick, Aldebaro Klautau, Isabel Trancoso, **Free Tools and Resources for Brazilian Portuguese Speech Recognition** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/6733.pdf>), Journal of the Brazilian Computer Society, Springer, vol. 17, n. 1, pages 53-68, November 2010

2008

- Jean-Luc Rouas, Isabel Trancoso, Maria do Céu Guerreiro Viana Ribeiro, Mónica Abreu, **Language and variety verification on broadcast news for Portuguese** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/4871.pdf>), Speech Communication, Elsevier, vol. 50, n. 11, doi: 10.1016/j.specom.2008.05.006, November 2008

International Conferences

2016

- Maria Joana Ribeiro Folgado Correia, Isabel Trancoso, Bhiksha Raj, **Adaptation of SVM for MIL for inferring the polarity of movies and movie reviews**, *In* IEEE Spoken Language Technology Workshop, IEEE, San Diego, California, USA, December 2016
- Rubén Solera Ureña, Helena Moniz, Fernando Batista, Ramon Fernandez Astudillo, Joana Carvalho Filipe de Campos, Ana Paiva, Isabel Trancoso, **Acoustic-prosodic automatic personality trait assessment for adults and children** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/12237.pdf>), *In* IberSPEECH 2016, Springer International Publishing, vol. 10077, series Lecture Notes in Computer Science, pages 192--201, doi: 10.1007/978-3-319-49169-1_19, Advances in Speech and Language Technologies for Iberian Languages: Third International Conference, IberSPEECH 2016, Lisbon, Portugal, November 23-25, 2016, Proceedings, Lisbon, November 2016
- Eugénio Alves Ribeiro, Fernando Batista, Isabel Trancoso, José David Lopes, Ricardo Ribeiro, David Martins de Matos, **Advances in Speech and Language Technologies for Iberian Languages: Third International Conference, IberSPEECH 2016, Lisbon, Portugal, November 23-25, 2016, Proceedings** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/12314.pdf>), *In* IberSPEECH 2016, Springer International Publish, vol. 10077, series Lecture Notes in Computer Science, pages 245--254, doi: 10.1007/978-3-319-49169-1_24, Advances in Speech and Language Technologies for Iberian Languages: Third International Conference, IberSPEECH 2016, Lisbon, Portugal, November 23-25, 2016, Proceedings, Lisbon, November 2016

- Eugénio Alves Ribeiro, Fernando Batista, Isabel Trancoso, Ricardo Ribeiro, David Martins de Matos, **Automatic Detection of Hyperarticulated Speech** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/12313.pdf>), *In IberSPEECH 2016*, Springer International Publish, vol. 10077, series Lecture Notes in Computer Science, pages 182--191, doi: http://dx.doi.org/10.1007/978-3-319-49169-1_18, Advances in Speech and Language Technologies for Iberian Languages: Third International Conference, IberSPEECH 2016, Lisbon, Portugal, November 23-25, 2016, Proceedings, Lisbon, November 2016
- Maria Joana Ribeiro Folgado Correia, Isabel Trancoso, Bhiksha Raj, **Detecting psychological distress in adults through transcriptions of clinical interviews** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/12330.pdf>), Springer, November 2016
- Vera Cabarrão, Isabel Trancoso, Ana Isabel Mata da Silva, Helena Moniz, Fernando Batista, **Global analysis of entrainment in dialogues** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/12238.pdf>), *In IberSPEECH 2016*, Springer, vol. 10077, series Lecture Notes in Computer Science, pages 215--223, doi: [10.1007/978-3-319-49169-1_21](http://dx.doi.org/10.1007/978-3-319-49169-1_21), Advances in Speech and Language Technologies for Iberian Languages: Third International Conference, IberSPEECH 2016, Lisbon, Portugal, November 23-25, 2016, Proceedings, Lisbon, November 2016
- Alberto Abad, Eugénio Alves Ribeiro, Fábio Natanael Kepler, Ramon Fernandez Astudillo, Isabel Trancoso, **Exploiting Phone Log-Likelihood Ratio Features for the Detection of the Native Language of Non-Native English Speakers** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/12183.pdf>), *In Interspeech 2016*, San Francisco, US, September 2016
- Sílvio Moreira, Ramon Fernandez Astudillo, Wang Ling, Mário J. Silva, Isabel Trancoso, **INESC-ID at SemEval-2016 Task 4-A: Reducing the Problem of Out-of-Embedding Words**, *In International Workshop on Semantic Evaluation (SemEval-2016)*, pages 238--242, July 2016
- Fernando Batista, Pedro dos Santos Lopes Curto, Isabel Trancoso, Alberto Abad, Jaime Rodrigues Ferreira, Eugénio Alves Ribeiro, Helena Moniz, David Martins de Matos, Ricardo Ribeiro, **SPA: Web-based Platform for easy Access to Speech Processing Modules** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/12031.pdf>), *In LREC*, European Language

Resources Association (ELRA), pages 3886--3892, doi: ISBN: 978-2-9517408-9-1, Portoro, Slovenia, May 2016

2015

- Abelino Jiménez, Bhiksha Raj, José Portêlo, Isabel Trancoso, **Secure Modular Hashing** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/11379.pdf>), *In* IEEE International Workshop on Information Forensics and Security (WIFS), IEEE, Rome, Italy, November 2015
- Eugénio Alves Ribeiro, Jaime Rodrigues Ferreira, Julia Olcoz, Alberto Abad, Helena Moniz, Fernando Batista, Isabel Trancoso, **Combining Multiple Approaches to Predict the Degree of Nativeness** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/11208.pdf>), *In* Interspeech 2015, Dresden, Germany, September 2015
- José Lopes, Giampiero Salvi, Gabriel Skantze, Alberto Abad, Joakim Gustafson, Fernando Batista, Raveesh Meena, Isabel Trancoso, **Detecting Repetitions in Spoken Dialogue Systems Using Phonetic Distances** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/11436.pdf>), *In* Interspeech 2015, ISCA, Dresden, Germany, September 2015
- Wang Ling, Tiago Luís, Luís Marujo, Ramon Fernandez Astudillo, Sílvio Moreira, Chris Dyer, Alan Black, Isabel Trancoso, **Finding Function in Form: Compositional Character Models for Open Vocabulary Word Representation** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/11318.pdf>), *In* 2015 Conference on Empirical Methods in Natural Language Processing (EMNLP 2015), ACL, Lisbon, Portugal, September 2015
- Ramon Fernandez Astudillo, Maria Joana Ribeiro Folgado Correia, Isabel Trancoso, **Integration of DNN Based Speech Enhancement and ASR** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/11311.pdf>), *In* Interspeech 2015, ISCA, Dresden, Germany, September 2015
- Wang Ling, Lin Chu-Cheng, Yulia Tsvetkov, Sílvio Moreira, Ramon Fernandez Astudillo, Chris Dyer, Alan Black, Isabel Trancoso, **Not All Contexts Are Created Equal: Better Word Representations with Variable Attention** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/11319.pdf>), *In* 2015 Conference on Empirical Methods in Natural Language Processing (EMNLP 2015), ACL, Lisbon, Portugal, September 2015
- Annamaria Pompili, Cristiana Filipa Lopes Amorim, Alberto Abad, Isabel Trancoso, **Speech and language technologies for the automatic monitoring**

- and training of cognitive functions** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/11553.pdf>), *In* Workshop on Speech and Language Processing for Assistive Technologies (SLPAT), Dresden, Germany, September 2015
- Helena Moniz, Annamaria Pompili, Fernando Batista, Isabel Trancoso, Alberto Abad, Cristiana Filipa Lopes Amorim, **Automatic Recognition of Prosodic Patterns in Semantic Verbal Fluency Tests - an Animal Naming Task for Edutainment Applications** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/11439.pdf>), *In* International Congress of Phonetic Sciences (ICPhS 2015), Glasgow, Scotland, UK, August 2015
 - Helena Moniz, Jaime Rodrigues Ferreira, Fernando Batista, Isabel Trancoso, **Disfluency Detection Across Domains** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/11437.pdf>), *In* DISS 2015, Edinburgh, Scotland, UK, August 2015
 - Vera Cabarrão, Helena Moniz, Jaime Rodrigues Ferreira, Fernando Batista, Isabel Trancoso, Ana Isabel Mata da Silva, Sérgio dos Santos Lopes Curto, **Prosodic Classification of Discourse Markers** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/11438.pdf>), *In* International Congress of Phonetic Sciences (ICPhS 2015), Glasgow, Scotland, UK, August 2015
 - Luís Marujo, Wang Ling, Isabel Trancoso, Chris Dyer, Alan W. Black, Anatole Gershman, David Martins de Matos, João Paulo da Silva Neto, Jaime G. Carbonell, **Automatic Keyword Extraction on Twitter** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/11195.pdf>), *In* 53rd Annual Meeting of the Association for Computational Linguistics, ACL, Beijing, China, July 2015
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- Anabela Barreiro, Luísa Coheur, Tiago Luís, Angela Costa, Fernando Batista, João Graça, Isabel Trancoso, **Multiword and Semantico-Syntactic Unit Alignments**, Tech. Rep. 23 / 2014 INESC-ID Lisboa, December 2014

2013

- Maria Joana Ribeiro Folgado Correia, Alberto Abad, Isabel Trancoso, **Towards an Anti-spoofing System Based on Phase and Modulation Features** (<http://www.inesc-id.pt/pt/indicadores/Ficheiros/9385.pdf>), Tech. Rep. 28 / 2013 INESC-ID Lisboa, December 2013

Doctoral Theses

1987

- Isabel Trancoso, **High Quality Speech Coding at Medium-to-Low Bit Rates**, PhD thesis, Instituto Superior Técnico, Lisboa, July 1987

Masters Theses

1984

- Isabel Trancoso, **Introdução à Criptografia de Dados**, MSc thesis, Instituto Superior Técnico, Lisboa, April 1984

**Fortegnelse over bedømmelsesudvalg til
stilling Associate Professor of Marine Governance and Coastal Community Development (42215)
ved PLAN**

Navn: Professor mso Lone Kørnøv
Arbejdssted: PLAN, AAU
E-mail: lonek@plan.aau.dk

Navn: Professor Jahn Petter Johnsen
Arbejdssted: University of Tromsø
E-mail: jahn.johnsen@uit.no

Navn: Professor Audun Sandberg
Arbejdssted: Nord University, Norway
E-mail: audun.sandberg@nord.no

Akademisk Råd har taget stilling til, at medlemmer af bedømmelsesudvalget er sagkyndige inden for stillingsområdet på et niveau, der mindst svarer til det, der forudsættes for stillingen, dog ikke under lektorniveau.

Associate Professor in Marine Governance and Coastal Culture (42215)

Position No.
42215

At the Technical Faculty of IT and Design, Department of Planning, Innovative Fisheries Management (IFM), a position as Associate Professor of Marine Governance and Coastal Community Development is open from 1 July 2017, or soon hereafter.

The Department of Planning (PLAN) conducts research and teaching on development and planning in a broad sense, including social science aspects as well as more technical aspects of development, and with a focus on environmental, international as well as administrative dimensions.

Innovative Fisheries Management is a research centre within PLAN undertaking social and economic research within fisheries and marine management and development of coastal communities and regions, both internationally and nationally. IFM focuses on the large societal challenges which coastal communities are facing including how their resource bases (fisheries, maritime industries, service and tourism areas) can be utilised in order to create change and adaptation to the global economy on one side and sustainable local development on the other. IFM also has a particularly strong focus on ecosystem-based approaches to marine and fisheries management, including management institutions and their role in ensuring the integration of the varied government policies. IFM collaborates cross-disciplinarily in order to develop sustainable solutions.

Job description

Specific research areas for the position fall within marine governance and coastal community development. The applicant should have documented experience in these areas such that they can contribute to the continued development of IFM's position as one of the leading research centres investigating the political processes surrounding fisheries/maritime management and development and transition within coastal communities in Europe and internationally.

The associate professor has the following general duties:

- a. To take an intellectual lead in developing research within IFM's core areas. In particular, the associate professor will be responsible for:
 - i. Developing IFM's capacity for carrying out Social Impact Assessments in fishing/coastal communities in regards to impacts of policy, disasters and climate change
 - ii. Developing IFM's international research and development profile in Asia.
- b. To be lead on applications for external research funding in order to make significant contributions to the continued high level of external funding in the research Group.
- c. To contribute to maintaining the national and international profile of IFM as a centre of scholarly excellence through the publication of research results and their applications, and the development and maintenance of a network of institutional partners.
- d. Take part in- and develop teaching activities at Aalborg University where expertise in anthropology is needed.

Qualifications:

- A Ph.D. in anthropology or related social science with a strong background in coastal cultures
- Demonstrated research interest in natural resource management
- Possessing experience in policy-oriented research

- Documented experience with mixed methods research, including qualitative interviewing and analysis, sample survey methodology, data management and basic statistics
- Possessing an active network and relationships with international institutions working with fisheries, marine and natural resource management.
- Documented experience in successful application for external research funding
- Experience in teaching after the PBL (problem Based Learning) methods

The position requires a track record of publications appropriate to a position as associate professor in the Danish university system. The position requires an extensive knowledge of social impact assessment methodology and experience in the application of these methods in an applied fisheries/marine governance context.

Furthermore, the applicant should have documented experience for participation in multidisciplinary research teams, research project management, producing advice to the European Commission or to national authorities. An ability to conduct research in an Asian language and research experience in developing countries is also highly desirable.

The application must contain the following:

- A motivated text wherein the reasons for applying, qualifications in relation to the position, and intentions and visions for the position.
- A current curriculum vitae.
- Copies of relevant diplomas (Master of Science and PhD).
- Scientific qualifications. A complete list of publications must be attached with an indication of the works the applicant wishes to be considered. You may attach up to 10 publications.
- Dissemination qualifications, including participation on committees or boards, participation in organisations and the like.
- If available a teaching portfolio.
- Additional qualifications in relation to the position.
- References/recommendations.
- Personal data.

The applications are only to be submitted online by using the "Apply online" button below.

An assessment committee will assess all candidates.

You may obtain further professional information from Associate Professor Søren Q. Eliassen, phone number +45 9940 2422 or e.mail: se@ifm.aau.dk

For further information concerning the application procedure please contact Nickie Hermansen by mail nkh@adm.aau.dk or phone (+45) 9940 7902

Information regarding guidelines, ministerial circular in force, teaching portfolio and procedures can be seen [here](#).

Workplace

Aalborg

Agreement

Employment is in accordance with the Ministerial Order on the Appointment of Academic Staff at Universities (the Appointment Order) and the Ministry of Finance's current Job Structure for Academic Staff at Universities. Employment and salary are in accordance with the collective agreement for state-employed academics.

Deadline

29/03/2017

Apply online

Aalborg University (AAU) conducts teaching and research to the highest level in the fields of humanities, engineering, and natural, health, and social sciences.

[top](#)

CURRICULUM VITAE

1. Personalia

Name: Jahn Petter Johnsen

Year of Birth: 1961

Place of employment: The Norwegian College of Fishery Science (NCFS), University of Tromsø, The Arctic University of Norway

Position: Professor (full)

Address: Norwegian College of Fishery Science, University of Tromsø, 9037 Tromsø, Norway

Telephone: +47 77646784

E-mail: Jahn.Johnsen@uit.no

Nationality: Norwegian

2. Education

| | |
|---------|--|
| 2003 | Dr.scient. (PhD) in Fisheries Science. University of Tromsø (UIT), Norway. |
| 1989 | Fiskerikandidat/ Master of Science in Fisheries Science. UIT |
| 1989-90 | Studies in Social Anthropology, UIT |

3. Professional Experience

| | |
|-------------------------|---|
| 2013-15-09 – dd. | Professor (full), <i>UIT, the Arctic University of Norway (UIT), Leader for the research group in Marine Resource Management and Development (MARA)</i> |
| 2006-01-01 – 2013-14-09 | Associate Professor, <i>UIT</i> |
| 2011-01-08 – 2012-20-06 | Visiting Researcher, <i>University of Edinburgh</i> |
| 2006-01-01 – 2010-30-06 | Senior Researcher, 20% Centre of Rural Research, Trondheim, Norway |
| 2000-01-01 – 2005-31-12 | Senior Researcher, <i>Centre of Rural Research, Trondheim, Norway</i> |
| 2003-07-01 – 2003-12-19 | Visiting Researcher, <i>Memorial University of Newfoundland</i> |
| 1996-07-01 – 1999-12-31 | PhD-student, <i>UIT</i> |
| 1994-10-01 – 1996-06-30 | Consultant. <i>Finnmark Development Agency</i> |
| 1991-04-01 – 1994-09-30 | Executive officer at different levels in public administration in Norway |
| 1989-09-01 – 1991-03-31 | Research Assistant, <i>UIT</i> |
| 1987-09-01 – 1988-05-01 | Training Coordinator, <i>Mara Fisheries Development Centre, Tanzania</i> |
| 1977 – 1986 | Full and part time fisher/employee in the fish processing industry |

4. Ongoing Research Projects:

Recruitment to fishing as a foundation for value adding in the seafood sector 2015-18

Aquaculture and climate change 2013-2015. Funding: Regional Research Fund

5. Earlier projects

Localities for aquaculture in Norway. 2014. Funding: Seafood Research Fund

Coastal Zone Planning in Scotland 2011-2012. Funding: Norwegian Research Council (NFR)

Integrated Coastal Development (I-Kyst/Coast). 2009-2012. Funding: NFR

Networks or markets? Employment systems in the fisheries. 2007-2010. Funding: NFR.

SEARCH Fisheries and Climate Change. In coll. w Univ. of Alaska, IPY-grant from NSF, USA.

How objects become manageable? (Canada, EU, and Norway) 2005-2008. Funding: NFR.

Knowledge and practice in Norway and Newfoundland fisheries. 2002-2004. Funding: NFR

Partner with Aalborg University/IFM in: *What the European Union can learn from Nordic countries experiences in fisheries management. Funding: Nordic Council of Ministers.*

Languages

Norwegian and English

Publications

Peer reviewed articles and book chapters

- Jentoft, S. and J.P. Johnsen (2015). The Dynamics of Small-Scale Fisheries in Norway: From adaptamentality to governability. In Jentoft and R. Chuenpagdee. *Interactive Governance for Small-Scale Fisheries, Global Reflections*. Pp705-23. Springer.
- Johnsen, J. P., and B. Hersoug. 2014. Local empowerment through the creation of coastal space? *Ecology and Society* 19(2): 60. <http://dx.doi.org/10.5751/ES-06465-190260>
- Johnsen, J. P., B. Hersoug and A.-M. Solås. 2014. The creation of coastal space – how local ecological knowledge becomes relevant. *Maritime Studies*, 13(2), 11. doi: <http://dx.doi.org/10.1186/2212-9790-13-2>
- Johnsen, J. P. I 2014. Is fisheries governance possible? *Fish and Fisheries*, 15, 428–444 <http://onlinelibrary.wiley.com/doi/10.1111/faf.12024/pdf>
- Johnsen, J. P., and J. Vik. 2013. Pushed or pulled? Understanding fishery exit in a welfare society context. *Maritime Studies*, 12.1:4. doi:10.1186/2212-9790-12-4
- Johnsen, J. P., J. Vik and S. A. Sønvisen (2013). Farvel til fiskeren. Farvel til fiskeren? Om frafall og rekruttering til fiske. I. Jentoft et al. *Det nye Nord-Norge. Politiske tidslinjer*. Orkana.
- Hersoug, B. and J. P. Johnsen (2012). Hvem skal bruke kystsonen? I: *Kampen om plass på kysten : interesser og utviklingstrekk i kystsonenplanleggingen*. Universitetsforlaget. Oslo. s. 13-17
- Johnsen, J. P. and B. Hersoug (2012). Når alt henger sammen med alt - et teoretisk rammeverk for å studere kystarealforvaltning. I: *Kampen om plass på kysten: interesser og utviklingstrekk i kystsonenplanleggingen*. Universitetsforlaget, Oslo. s. 40-57
- Hersoug, B. J. P. Johnsen, T. Borch, O. Andreassen and A. Buanes (2012). Forhandlinger om plass - eksemplet Alta. I: *Kampen om plass på kysten : interesser og utviklingstrekk i kystsonenplanleggingen*. Universitetsforlaget. Oslo s. 61-80
- Hersoug, B., O. Andreassen, J.P. Johnsen and M. Pihlstrøm (2012). Fiskehelse krever plass. Veterinærer og fiskehelsebiologer som premissgivere for arealbruk i kystsonen. I: *Kampen om plass på kysten: interesser og utviklingstrekk i kystsonenplanleggingen*. Universitetsforlaget, Oslo. s. 179-198
- Hersoug, B. and J. P. Johnsen (2012). 12 teser om kystsoneforvaltning og norsk fiskeoppdrett. I: *Kampen om plass på kysten: interesser og utviklingstrekk i kystsonenplanleggingen*. Universitetsforlaget, Oslo. s. 261-281
- Johnsen, J. P. and S. Eliassen, S. (2011). Solving complex fisheries management problems: What the EU can learn from the Nordic experiences of reduction of discards. *Marine Policy*, 35(2), 130-139. doi: DOI: 10.1016/j.marpol.2010.08.011

- Sønvisen, S. A. J.P. Johnsen, J. P. and J. Vik. (2011). The Coastal Employment System - what it was and what it is. *Mast 10 (1)*: 31-56.
- Johnsen, J.P; P. Holm, P. R. Sinclair, D. Bavington (2011). Le poisson-cyborg, ou comment gérer l'ingérable?. In: *Océans : L nouvelle Frontière*. Armand Colin. p. 209-218
- Johnsen, J.P; P. Holm, P. R. Sinclair, D. Bavington (2011). The Rise of the Cyborg Fish: On Attempts to make Fisheries Manageable. In: *Oceans The New Frontier*. New Dehli: TERI Press. p. 83-94
- Vik, J., J.P. Johnsen and S. A. Sønvisen (2011). Kysten i endring: Om fiskeripolitikken som distrikts- og lokalsamfunnspolitikk, in Haugen, M. og E.P. Stræte (red). *Rurale brytninger*. Trondheim: Tapir
- Andreassen, O, J. P. Johnsen and B. Hersoug (2010). Oppdrettsnæringens minimale arealbeslag er i svak vekst og sterk endring. *Norsk Fiskeoppdrett (35)* 8:48-51.
- Johnsen, JP, P. Holm, P. Sinclair and D. Bavington (2009). The Cyborgization of the Fisheries. On Attempts to Make Fisheries Management Possible. *Mast 7 (2)*:9-34
- Sinclair, P, J.P. Johnsen and P. Ripley (2009). Power and the Production of Science. Assessing Cod Stocks as the Mechanistic Fisheries Collapses. *Mast 7 (2)*:35- 53.
- Johnsen, J. P, G. Murray and B. Neis (2009). North Atlantic Fisheries in Change. From Organic Associations to Cybernetic Organizations. *Mast 7 (2)*:55-82.
- Johnsen. J. P. (2008). Forvaltning, styring og kybernetisering i norsk fiskerinæring? in Baily, J., R. G. Tiller, O. Otterstad og A. M. Tretvik (red.) *Raudåte – redning eller ruin?* Trondheim: Tapir.
- Nordstrand, K. og J. P. Johnsen (2008). Lokalsamfunnet – infrastruktur eller kulisse for fisketurisme? i Almås, R. M.S.Haugen, J. F. Rye og M. Villa. (red.) *Den nye bygda*. Trondheim:Tapir.
- Murray, G. D., B. Neis, and J.P. Johnsen (2006). Lessons Learned from Reconstructing Interactions between Local Ecological Knowledge, Fisheries Science and Fisheries Management in the Commercial Fisheries of Newfoundland and Labrador, Canada. *Human Ecology* (DOI: 10.1007/s10745-006-9010-8).
- Johnsen, J. P. (2005). The evolution of the "harvest machinery": Why capture capacity has continued to expand in Norwegian fisheries, *Marine Policy*. 29 (6): 48-493.
- Johnsen, J. P. (2004). Latour, Natur og havforskere – hvordan produsere natur? *Sosiologi i dag*, 34, nr 2. 47-67.
- Almås, R., M. S. Haugen and J. P. Johnsen (2002). Bygder og forskning i 20 år, i Almås, Reidar, Marit. S. Haugen og Jahn Petter Johnsen (red.): *Bygdeforskning gjennom 20 år*. Tapir akademisk forlag, Trondheim, pp. 9-17.
- Johnsen, J. P. (2002). Fiskeren fra veidemann til advokat. In Almås, Reidar, Marit.S.Haugen og Jahn Petter Johnsen (red.): *Bygdeforskning gjennom 20 år*. Tapir Akademisk Forlag, Trondheim, pp. 91-108.
- Husmo, M. and J. P. Johnsen (2000). Fra bygd og fjord til kafébord? In Marit Husmo og Jahn Petter Johnsen (red.): *Fra bygd og fjord til kafébord?* Trondheim: Tapir Akademisk forlag. Pp. 7–19.

Books

- Hersoug, B. and J. P. Johnsen (red.). (2012). *Kampen om plass på kysten: interesser og utviklingstrekk i kystsonoplanleggingen*. Oslo, Universitetsforlaget.
- Carothers, C; K.R. Criddle, C.P. Chambers, P. J. Cullenberg, J. A. Fall, A. H. Himes-Cornell, Amber, J. P. Johnsen, N. S. Kimball, C. S. Menzies, E. S. Springer. (eds.) (2012). *Fishing People of the North. Cultures, Economies, and Management Responding to Change*. Alaska Sea Grant 302 s.
- Johnsen, J. P. (2004). *Fiskeren som forsvant? Avfolking, overbefolkning og endringsprosesser i norsk fiskerinæring i et aktør-nettverk-perspektiv*. Trondheim: Tapir Akademiske Forlag.
- Jacobsen, E. R. Almås and J. P. Johnsen (red.) (2003). *Den politiserte maten*. Oslo: Abstrakt Forlag
- Almås, R., M. S. Haugen and J.P. Johnsen (red.) (2002). *Bygdeforskning gjennom 20 år*. Tapir Akademisk forlag
- Husmo, M. and J. P. Johnsen (red.). (2000). *Fra bygd og fjord til kafébord?* Trondheim: Tapir Akademisk forlag.

CURRICULUM VITAE



AUDUN SANDBERG
Professor in Sociology ,
Nord University, Norway

BRIEF VERSION 2017

N-8049 Bodø
Phone +47 7551 7310
E-mail: Audun.Sandberg@nord.no
Born 16 June 1946
Birthplace Mo i Rana, Norway
Nationality Norwegian

FORMAL EDUCATION:

Cand.Polit. with Development Sociology (University of Bergen), Sociology, Social Anthropology and Economics from University of Oslo, University of Bergen and London School of Economics.

COMMISSIONS:

1996-2000 Member of the Norwegian National UNESCO-Commission
Chairman of the UNESCO Committee for Social Sciences and Humanities within the, Liason for UNESCO MOST programme and CSI programme
1994-95 Program Co-chair for Vth IASCP Common Property World Conference:
"Reinventing the Commons" - in Bodø, Norway 24 - 28 May 1995
1994-97 Member of scientific steering committee of the Norwegian Research Council's Program on Sea Ranching (PUSH)
1996-04 Member of The Norwegian Research Council's Infrastructure committee for Environmental Research Institutes in Norway, (Basisbevilgningsutvalget) Chairman from 2000-2004
2006 → Editorial Board of International Journal of the Commons (IJC)
2010-2012 Member of the Board of Norwegian Research Council's Regional North Norwegian Research Fund.
2010 Swedish FORMAS : Research Application Expert Evaluator (Chair)
2009-2011 Program Co-organizer for 2nd IASC European Regional Conference, Plovdiv, Bulgaria (2011)
2011 EU 7FRP Research Application Expert Evaluator (Ocean of tomorrow Programme)

RELEVANT PROFESSIONAL EXPERIENCE

➤ University of Dar es Salaam, Bureau of Resource Assessment and Land Use Planning: Senior Research Fellow (BRALUP/IRA) (DANIDA).(Ref Professor Adolfo Mascarenhas) 1972-1976.

Tasks: Impact studies: Field work in Rufiji River Flood Plain and Delta. Preparatory work for Rural Integrated Development Planning: Field work in Sumbawanga Highlands/Lake Tanganyika East shore.

➤ Royal Norwegian Ministry of Environment, Advisor ,1976 - 1978, Environmental Research coordinator, White Paper on organisation of environmental policy matters at regional and local level in Norway.

➤ Norwegian Aid Agency (NORAD) Advisor, 1978, Tasks: Promoting the gender dimension in Development Aid. Start-ups: Rural Integrated Development Programmes in Hambantota – and Moneragala, Sri Lanka.

➤ Nordland U. College/Bodø U. College, Assoc. Professor in Social Science, 1978-2008, Tasks: Teaching, Research and curricula development

➤ Dean of Faculty of Social Science (1982 - 85), Tasks. Faculty administration, strategies for development of programmes and research.

➤ Rector (President) of Nordland University College (1985 - 1990) Tasks: College administration, Policy development, strategies for college development.

➤ Nordlandsforskning/Nordland Research Institute, (Senior Research Fellow) 1992 – 2002. Tasks: Research Program developments, Northern Research Issues.

➤ NORDREGIO, Stockholm, Senior Research Fellow, 2001, Tasks: Nordic Sustainability Research, Common Property institutions in the Nordic Countries.

➤ University of Nordland: Professor 2008 - 2016..... Tasks: Research Group leader: Environment, Resource and Climate research.

➤ Nord University, Professor Emeritus 2016 --

➤ **Research Projects:**

- NFR-LOS i NORD-NORGE,
- EU-MARE,
- EU-COASTMAN,
- EU-ELSA-PÉCHE,
- NFR-Utmarksprogrammet,
- NFR-PROBUS (2006-2010),
- EU-SPICOSA (2007-2011)
- NFR NAPROLD (2007-2010)
- MISTRA – Arctic Futures (2011-2013)
- NFR – CAVIAR II (2012.2014)

VISITING RESEARCH FELLOWSHIPS:

University of Alberta 1982

Pacific Lutheran University 1987

University of Sussex, Institute of Development Studies – 1991

Indiana University, Workshop in Political Theory and Policy Analysis,
(1990,1993, 1998, 2005, 2008 & 2011)

SELECTED PUBLICATIONS :

- Ressources naturelles et droits de propriété dans le Grand Nord norvégien i *NATURES SCIENCES SOCIETES*, Vol. 2 (4) 1994 (DUNOD)
- Community Fish or Fishing Communities ? in Symes D. and Crean K. eds. *Fisheries Management in Crisis: A Social Science Perspective*, Blackwell, London 1995
- Against the wind: On Reintroducing Commons Law in Northern Norway, in *Mountain Research and Development*, (UNU/IMS), Vol 18, Number 1, February 1998
- The Analytical Importance of Property Rights to Northern Resources. in Erling Berge and Nils Chr. Stenseth (eds.): *Law and the Management of Divisible and Non-Excludable Renewable Resources*, ICS-Press, San Fransisco, 1998
- Allmennifisering og integrert økosystemforvaltning i Nord-Norge?, i *UTMARK – elektronisk tidsskrift fra NUT*, nr. 1 år 2000, www.ostforsk.no/Utmark/pub/no1
- Comparative analysis of institutional arrangement experiences and needs for Integrated Coastal Zone; Management in three European countries: France, Norway and Greece, COASTMAN (ENV-CT97-0045) *Final Report to the European Commission* ; Rapport N*2000-8, Brest, France. With Bjørn K. Sagdahl, Håkan Sandersen, Katia Frangoudes, Denis Bailly, Stéphanie Sauveé, Jean-Marc Tanguy and Miltiadis Kalamaras
- Friluft og frihet for alle?, Om fritidsbruk og næringsbruk av nordnorske utmarksressurser, in Vorkinn, M. & Aamelfot, A.M., (eds.) Delrapport nr. 2 : *Friluftsliv i "NFR's Sluttrapport fra Utmarksprogrammet*, , Norges Forskningsråd, Oslo, Juni 2001
- Institutional Challenges for Common Property Resources in the Nordic Countries, NORDREGIO Rapport nr. R2001:7, September 2001,
- Choisir le régime de droits de propriété pour la gestion du littoral, in *Droits de Propriété, Économie et Environnement: Le Littoral*, eds. M. Falque & H. Lamotte) , Bruylant, Bruxelles 2003
- Statlig Miljøpolitikks regionale og distriktpolitiske effekter, Underlagsrapport for "Effektutvalget" jfr. *NOU:2004:2: Effekter og effektivitet*, Publisert elektronisk og som HBO rapport no 2-2004.
- Ownership in the Mountains, influences on Management, in *Thompson, D. Ed. Mountains of Northern Europe, Conservation, Management, People and Nature, Scottish Natural Heritage, 2005., Edinburgh.*
- "Commons for whom? On new Coastal Commons on North Norwegian Coasts, in Berge, E. & Carlson, L., *Commons: Old and New*, Centre for Advanced study, Oslo, NTNU/ ISS Rapport nr. 70, Trondheim, 2003
- Property Rights and Ecosystem Properties, , Published in *Land Use Policy* 24(2007)

613-623.

- Collective rights in a modernizing North - on institutionalizing Sámi and local rights to land and water in northern Norway, *International Journal of The Commons*, Vol2, No 2, 2007
- Constituting a New Order in The European North in Filippo Sabetti, Barbara Allen, and Mark Sproule-Jones, eds., *The Practice of Constitutional Development: Vincent Ostrom's Quest to Understand Human Affairs*. Lanham, MD: Lexington Books " 2009
- Institutional Challenges to robustness of delta and floodplain agricultural systems, Published in *Environmental Hazards – Human and Policy Dimensions* vol 9 (2010) 284-300
- *Sustaining Coastal Zone Systems* (2011); edited by Paul Tett, Audun Sandberg and Anne Mette, author/co-author of chapters 1,2,3 & 6, Dunedin Academic Press, Edinburgh, UK
- *Lofoten Tourism Futures: Actors and Strategies* (2012), (with Merete K. Fabritius), *MISTRA: Arctic Futures Programme, UiN Report No 3/2012, Bodø*
- *Synthesis, A Systems Approach Framework for the Transition to Sustainable Development: Potential Value Based on Coastal Experiments*, part of a Special Feature on A Systems Approach for Sustainable Development in Coastal Zones, by Tom S. Hopkins, Denis Bailly , Ragnar Elmgren, Audun Sandberg, Gillian Glegg and Josianne G. Støttrup. *Ecology and Society* **17**(3): 39., <http://dx.doi.org/10.5751/ES-05266-170339>
- Commons in a changing Europe (Editorial to the special feature), with Insa Theesfeld, Achim Schlüter, Ivan Penov and Violeta Dirimanova, in *Commons in a changing Europe* (Guest editors: A. Sandberg, I. Theesfeld, and A. Schlueter, *International Journal of the Commons*, Vol 7, No1 (2013)
- Perspectives of Social and Ecological Systems, with Paul Tett, Anne Mette, Denis Bailly, Marta Estrada, Thomas Sawyer Hopkins, Maurizio Ribera d'Alcalá and Lorraine McFadden, in *Global Challenges in Intergrated Coastal Zone Management*, eds. E. Moksness, E. Dahl and J. Støttrup, Wiley-Blackwell, Sussex (2013)
 - Scott G. Cole, Gerda Kinell, Tore Söderqvist, Cecilia Håkansson, Linus Hasselström, Sergei Izmalkov, Eirik Mikkelsen, Maria Noring, Audun Sandberg, Eric Sjöberg, Åsa Soutukorva, Frida Franzén & Yulia Khaleeva (2016) Arctic games: an analytical framework for identifying options for sustainable natural resource governance, *The Polar Journal*, 6:1, 30-50, DOI: 10.1080/2154896X.2016.1171001

**Fortegnelse over bedømmelsesudvalg til
stilling Associate Professor or Assistant Professor in Land Management (42216/201705) ved PLAN**

Navn: Associate Professor Carsten Jahn Hansen

Arbejdssted: PLAN, AAU

E-mail: jahn@plan.aau.dk

Navn: Professor Per Kåre Sky

Arbejdssted: Norges Miljø- og Biovidenskabelige Universitet

E-mail: per.sky@nmbu.no

Navn: Projektleder (tidligere lektor) Line Træholt Hvingel

Arbejdssted: COWI

E-mail: lthv@cowi.dk

Akademisk Råd har taget stilling til, at medlemmer af bedømmelsesudvalget er sagkyndige inden for stillingsområdet på et niveau, der mindst svarer til det, der forudsættes for stillingen, dog ikke under lektorniveau.

Associate Professor or Assistant Professor in Land Management (42216/201705)

Position No.

42216/201705

At the Technical Faculty of IT and Design, Department of Planning, Copenhagen campus, a position as Associate Professor OR Assistant professor in Land Management, is open for appointment from 1 July 2017 or soon hereafter.

The position as Associate Professor is permanent.

The position as Assistant Professor is for a period of 3 years.

In your application, you must clearly specify whether you apply for the Associate Professor OR/AND the Assistant Professor position. The Associate Professor position has the number 42216 and the Assistant Professor position has the number 201705.

The field of the Department for Planning includes development and planning in a broad sense, and thereby it reaches from the social science aspects of development (technological, environmental, international and administrative aspects) to physical planning, sector planning, land management, and to technical subjects such as surveying and geoinformatics. See more at www.plan.aau.dk.

Job description**Job description for the Associate Professor position**

Research areas will be within Land Management broadly defined with special focus on land administration, urban and spatial planning, cadastre and land registration system. Knowledge and experience within GIS is required.

Teaching will primarily be in the Bachelor Programme in Surveying, Planning and Land Management ("landinspektørvidenskab"), but also at the associated master programme and in other study programmes at the University will be relevant. Teaching at the bachelor education is in Danish language.

Qualification requirements for the Associate Professor position:

The level of qualification for Associate Professors shall correspond to the level, which can be achieved on the basis of the appointment as Assistant Professor, but may be achievable in other ways. The appointment presupposes that the applicant can demonstrate original scientific production at an international level as well as documented teaching qualifications.

Appointment to the position requires that both research and teaching qualifications are at the requested level. The two qualifications will be given equal and principal priority in the overall assessment.

Job description for the Assistant Professor position

Research areas will be within Land Management broadly defined with special focus on land administration, urban and spatial planning, cadastre and land registration system. Knowledge and experience within GIS is required.

Teaching will primarily be in the Bachelor Programme in Surveying, Planning and Land Management ("landinspektørvidenskab"), but also at the associated master programme and in other study programmes at the University will be relevant. Teaching at the bachelor education is in Danish language.

Qualification requirements for the Assistant Professor position:

Appointment as an Assistant Professor presupposes scientific qualifications at PhD-level or similar scientific qualifications. The research potential of each applicant will be emphasized in the overall assessment. Appointment as an Assistant Professor cannot exceed a period of four years in total at Aalborg University in a temporary position (appointment at Assistant Professor level cannot exceed a period of eight years in total in Denmark).

You may obtain further professional information from Head of Section, Professor Henning Sten Hansen, e-mail: hsh@plan.aau.dk / phone: +45 2815 6464 or Head of Department Tine Herreborg Jørgensen, e-mail: tine@plan.aau.dk / phone.: +45 9356 2141.

The application must contain the following:

- A statement outlining your reasons for applying, and intentions and visions with, the position.
- Your curriculum vitae, including personal data, educational background, scientific qualifications, dissemination skills, participation in committees and boards, and additional qualifications relevant for the position.
- Copies of relevant diplomas (Master of Science and PhD). On request, you could be asked for an official English translation.
- A complete list of publications.
- Publications you wish to be considered by the assessment committee. You may attach up to 5 publications if you apply for the Assistant Professor position and up to 10 publications if you apply for the associate professor position.
- A specification of your teaching qualifications relative to the teaching portfolio. If this is not enclosed, you must include an explanation for its absence.
- References/recommendations.

The applications are only to be submitted online by using the "Apply online" button below. An assessment committee will assess all candidates.

For further information concerning the application procedure please contact Nickie Kate Hermansen by mail hr-tech@adm.aau.dk or phone (+45) 9940 7902.

Information regarding guidelines, ministerial circular in force, teaching portfolio and procedures can be seen [here](#).

Workplace

Copenhagen

Agreement

Employment is in accordance with the Ministerial Order on the Appointment of Academic Staff at Universities (the Appointment Order) and the Ministry of Finance's current Job Structure for Academic Staff at Universities. Employment and salary are in accordance with the collective agreement for state-employed academics.

Deadline

29/03/2017

Apply online

Aalborg University (AAU) conducts teaching and research to the highest level in the fields of humanities, engineering, and natural, health, and social sciences.

[top](#)

CURRICULUM VITAE

Per Kåre Sky

Cand. agric, Dr.scient.

Oddaneveien 39, N-3296 Nevlunghavn

Født: 29.05.1962

Sivilstatus: Gift, 2 barn / stebarn

E-post: per.sky@usa.net eller per.sky@nmbu.no

Bedømmelse

- 12/1999 Professorkompetanse i jordskifte, Norges landbrukshøgskole
06/2014 Dosentkompetanse i rettsvitenskap, Universitetet i Agder

Utdannelse

- 1984-85 Statens skogskole Osen, skogbrukerkurs
1985-89 Norges landbrukshøgskole, jordskifte kandidat, standard studieplan
eiendomsutforming
1989-95 Norges landbrukshøgskole, dr.scient, hovedfag i eiendomsutforming

Arbeidserfaring

| Tidsrom | Stilling | Arbeidssted |
|--------------------|---------------------|---|
| 5/1986 - 8/1986 | Landmåler | Fylkesjordskiftekontoret i Vestfold |
| 5/1987 - 8/1987 | Jordskiftelandmåler | Fylkesjordskiftekontoret i Vestfold |
| 5/1988 - 8/1988 | Jordskiftelandmåler | Fylkesjordskiftekontoret i Vestfold |
| 6/1989 - | Høgskolestipendiat | Norges landbrukshøgskole, Institutt for |

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|----------------------|--|---|
| 11/1992 | | planfag og rettslære |
| 9/1992 - 11/1995 | Overingeniør/seksjonsleder | Forsvarets bygningstjeneste, Sentralledelsen |
| 4/1994 - 12/1999 | Forsker II | Norges landbrukshøgskole, Institutt for landskapsplanlegging |
| 11/1995 - 12/2001 | Fylkesjordskiftesjef | Jordskifteverket i Hordaland |
| 1/2002 - 3/2003 | Jordskifterettsleder | Nord- og Midhordland jordskifterett |
| 11/1995 - 3/2003 | Jordskiftedommer | Nord- og Midhordland jordskifterett |
| 4/2003 - 10/2006 | Jordskifteoverdommer / jordskifteoverrettsleder | Gulating jordskifteoverrett |
| 1/2000 - 12/2009 | Professor II i eiendomsfag | Universitetet for miljø- og biovitenskap, Institutt for landskapsplanlegging |
| 10/2006 - 09/2008 | Professor i jordskifte | Høgskolen i Bergen, Institutt for bygg- og jordskiftesfag |
| 10/2008 - 10/2013 | Jordskifteoverdommer / jordskifteoverrettsleder | Gulating jordskifteoverrett (permisjon fra stillingen til 10/2015) |
| 2/2011 og 2/2012 | Visiting professor | University of Santiago de Compostela |
| 6/2012 - 10/2013 | Professor II i jordskifte | Høgskolen i Bergen, Institutt for bygg- og jordskiftesfag |
| 11/2013 - dd | Professor / professor II i jordskifte | Høgskolen i Bergen, Institutt for byggfag |
| 01/2016 - dd | Professor i jordskifte og eiendomsfag | Norges miljø- og biovitenskaplige universitet, Institutt for eigedom og juss |

Faglige verv (kronologisk)

| | | |
|----------------|---|---|
| 4/1991- 2/1993 | Leder av arbeidsgruppe oppnevnt av Landbruksdepartementet | Evaluerings av Jordskifteverkets utvida karttjeneste |
| 1991-1997 | Redaksjonssekretær/konsulent i fagtidsskriftet Kart og Plan | Universitetsforlaget |
| 1994-1995 | Medlem av referansegruppe i | Passivt baseforsvarssystem - Forsvarets |

| | | |
|-------------------|---|--|
| | forskningsprosjekt | forskningsinstitutt |
| 1994-1995 | Sekretær i FIG kommisjon 3 | Geographical Information System (kun kort periode) |
| 1996 - dd | Fagfelle i Kart og Plan | Universitetsforlaget / Fagbokforlaget, fagtidsskrift på nivå 1 |
| 1996 | Jury medlem i idekonkurranse | Utbygging av Odderøya - Forsvarets bygningstjeneste og Kristiansand kommune |
| 1996 | Sakkyndig vitne i Eidsivating lagmannsrett | Transportkostnader og arrondering i landbruket |
| 1997 - 2005 | Nestleder i rådet for Norsk Institutt for Jord- og Skogkartlegging (NIJOS) | To perioder a 4 år + 1 år. |
| 1997 - 2001 | Leder av Jordskifteverkets IT-gruppe | To perioder a 2 år |
| 12/1997-10/1998 | Leder av arbeidsgruppe oppnevnt av Landbruksdepartementet | Utredning av NIJOS' tjenester til Jordskifteverket |
| 1998 | Fagfelle i Forest & Landscape Research | Danish Forest and Landscape Research Institute and Swedish University of Agricultural Sciences |
| 3/1999-5/1999 | Leder av arbeidsgruppe oppnevnt av Landbruksdepartementet | Utredning vedrørende intranett i Jordskifteverket |
| 12/1998-12/1999 | Medlem av referansegruppe oppnevnt av Landbruksdepartementet | Organisasjonsutvikling i Jordskifteverket |
| 7/2000 - 12/2002 | Ansvarlig redaktør i fagtidsskriftet Kart og Plan | Universitetsforlaget |
| 1/2003 - 3/2003 | Fagredaktør i Kart og Plan | Redaktør for eiendomsfag |
| 1/2001 - 12/2009 | Member of Editorial Board - Transactions in Land Management - Ashgate Publishing, London | Fra og med utgave nr. 5 |
| 2003 - 2004 | Fagfelle - European Planning Studies | Carfax Publishing. Internasjonal fagtidsskrift på det tidspunktet på nivå 2 |
| 1/2005 | Gjesteredaktør i Kart og Plan | Festskrift til professor Thor Falkanger |
| 10/2005 - 10/2007 | Redaksjonsmedlem - Areal og eiendomsrett | Jubileumsbok utgitt på Universitetsforlaget, Norges jordskifte kandidatforening |
| 2/2006 - 7/2006 | Medlem i arbeidsgruppe oppnevnt av styret i Domstoladministrasjonen | Etisk regelverk for dommere |

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|-------------------|--|---|
| 10/2007 | Gjesteredaktør i Kart og Plan nr. 4/2007 | Hefte tilegnet professor Hans Sevattal |
| 3/2008 - 8/2009 | Redaksjonsmedlem - Perspektiver på jordskifte | Jubileumsbok utgitt i forbindelse med jordskiftedomstolen 150 år. Gyldendal akademisk |
| 1/2009 - 12/2011 | Medlem i fagrådet for kompetanseutvikling i domstolene og Domstoladministrasjonen. | Valgt for 3 år |
| 10/2009 | Gjesteredaktør i Kart og Plan nr. 4/2009 | Jordskifteretten 150 år |
| 2009 - 2015 | Member of Editorial Board and Scientific Committee - Spanish Journal of Rural Development | Spansk- og engelskspråkelig vitenskapelig tidsskrift på nivå 1 |
| 1/2011 - 12/2014 | Medlem i faglitteraturutvalget i domstolene og Domstoladministrasjonen. | |
| 6/2011 - 4/2013 | Medlem av prosjektgruppe for kompetanseløpet for jordskiftedommerfullmektige og jordskiftedommere nedsatt av Domstoladministrasjonen. | |
| 6/2013 - 11/2013 | Medlem av prosjektgruppe for kompetansekrav til fremtidens jordskiftedommere nedsatt av Domstoladministrasjonen. | |
| 12/2013 | Fagfelle - Local environment | Taylor & Francis. Internasjonalt fagtidsskrift på nivå 1 |
| 06/2015 | Gjesteredaktør i Kart og Plan nr. 2/2015 | Ny jordskiftelov |
| 11/2016 – 10/2020 | Medlem av Innstillingsrådet for dommere. Domstoladministrasjonen. | Utnevnelse – Kongen i statsråd |

Bedømmelseskomiteer

| | | |
|-------------|---|---|
| 2002 | Norges landbrukshøgskole, Institutt for landskapsplanlegging | Leder av sakkyndig komite for bedømmelse av førsteamanuensisstilling innenfor eiendomsfag og arealplanlegging |
| 5/2003 | Norges landbrukshøgskole, Institutt for landskapsplanlegging | Opponent, dr.scient i eiendomsfag |
| 2003-5/2005 | Aalborg Universitetscenter, Institut for Samfundsudvikling og Planlægning | Opponent, Ph.D i eiendomsfag |
| 1/2005 | University of East London, School of Surveying | External Academic Referee, Reader-position. |
| 9/2005 | Sveriges landbruksuniversitet, Fakulteten för landskapsplanering, trädgårds- och jordbruksvetenskap | Opponent, Dr.agric i GIS, jordskifte og landskapsplanlegging |
| 08/2006 | Universitetet for Miljø- og Biovitenskap, Institutt for landskapsplanlegging | Leder av sakkyndig komite for bedømmelse av førsteamanuensis/amanuensis/høgskolelektor i GIS i planlegging |
| 12/2007 | Aalborg universitet, Institut for Samfundsudvikling og Planlægning | Medlem av sakkyndig komite for bedømmelse av professorat i geografiske informasjonsteknologi. |
| 08/2009 | Aalborg universitet, Institutt for Samfundsudvikling og Planlægning | Opponent, Ph.D i eiendomsfag. |
| 12/2009 | Universitetet for Miljø- og Biovitenskap, Institutt for landskapsplanlegging. | Medlem av sakkyndig komite for bedømmelse av professorat i eiendomsfag. |
| 10/2011 | Aalborg universitet, Institut for Samfundsudvikling og Planlægning | Medlem av sakkyndig komite for bedømmelse av adjunkt i eiendomsregistrering. |
| 8/2013 | Høgskolen i Bergen, Avdeling for | Leder av sakkyndig komite for bedømmelse av professorat i arealplanlegging |

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| | ingeniørutdanning | |
| 10/2013 | Universitetet for Miljø- og Biovitenskap, Institutt for landskapsplanlegging | Medlem av sakkyndig komite for bedømmelse av dosent/førstelektor/universitetslektor i eiendom |
| 2/2015 | Aalborg universitet | Opponent, Ph.D i eiendomsfag |
| 9/2015 | Aalborg universitet | Medlem av sakkyndig komite for bedømmelse av lektorat i eiendomsregistrering. |
| 7/2016 | Høgskolen i Bergen | Leder av sakkyndig komite for bedømmelse av førsteamanuensis/førstelektor/høgskolelektor innen GIS/geomatikk |

Publikasjonsliste – Per Kåre Sky (2000-2017)

Nedenfor følger publikasjonsliste for arbeider etter professorbedømmelsen i jordskifte på Norges landbrukshøgskole av 8. november 1999.

Fagfellevurderte artikler

Rognes, J.K. og Sky, P.K. (2000). Megling i domstolene, særlig i jordskifteretten. Lov og Rett nr. 2/2000, Universitetsforlaget, s. 101-112.

Goodale, M.R.G. and Sky, P.K. (2001). A Comparative Study of Land Tenure, Property Boundaries and Dispute Resolution: Case Studies from Bolivia and Norway. Journal of Rural Studies, Vol. 17/2, s. 49-67.

Rognes, J. K. and Sky, P.K. (2003). Intervention Methods in Land Disputes. European Planning Studies, Vol. 11, No. 8, Carfax Publishing, Taylor & Frances LTD, s. 965-978.

Lande, K., Sky, P.K., Stokstad, S. og Bjørklid, A. (2012). Jordskifte i sjø- og strandområder. Tidsskrift for eiendomsrett, Vol. 8(4), Gyldendal akademisk, s. 235-247.

Lyng, A.M. og Sky, P.K. (2013). Managing grouse hunting grounds. Spanish journal of rural development, Vol. IV(2), s. 31-38.

Bernt, C., Mykland, S. og Sky, P.K. (2014). Evaluering av rettsmekling i jordskifterettene 2012. Sentrale funn, problemstillinger og implikasjoner. Lov og Rett, Vol. 53(6), s. 334-359.

Lande, K., Løken, L., Bruflot, A., og Sky, P.K. (2014). Oppløsning av personlig sameie i fast eiendom som jordskiftesak. Tidsskrift for eiendomsrett, Vol. 10(2), Gyldendal rettsdata, s. 121-133.

Sky, P.K. (2015). Land consolidation in Norway in an international perspective. Spanish journal of rural development; Volum VI.(1-2) s. 81-90.

Lande, K., Hoddevik, C.L. og Sky, P.K. (2015). Avløsning av bruksretter. Kart og Plan, Volum Vol. 75.(2) s. 145-154.

Noss, N.C. og Sky, P.K. (2017). Rettens kontroll av om de materielle vilkårene for jordskifte og/eller skjønn er til stede. Tidsskrift for eiendomsrett, Universitetsforlaget. [I trykk]

Bøker

Bjerva, Ø.J., Holth, F., Reiten, M., Sky, P.K. og Aasen, I. (2016). Jordskifteloven. Kommentartutgave, Universitetsforlaget.

Sky, P.K. og Berge, E. (red.) (2017). Hans Sevatdal. Eieendomshistorie. Hovudliner i norsk eieendomshistorie frå 1600-talet fram mot nåtida. Universitetsforlaget

Fagfellevurderte bokkapitler

Sky, P.K. (2002). Layout of Farmland Plots. In: Dixon-Gough, R.W. and Mansberger, R. (2002). Transactions in International Land Management, Vol. 3. Ashgate Publishing Ltd, s. 83-93.

Rognes, J.K. and Sky, P.K. (2004). Mediation in land consolidation and in boundary disputes. In: Deakin, M., Mansberger, R. and Dixon-Gough, R.W. Methodologies, Models and Instruments for Rural and Urban Development. Ashgate, s. 59-74.

Sky, P.K. (2007). Internasjonalt perspektiv på jordskifte. I Ravna, Ø. (red), Areal og eiendomsrett, Universitetsforlaget, s. 433-447.

Rognes, J.K. og Sky, P.K. (2007). Konfliktløsning og fast eiendom - eksisterende og nye arenaer. I Ravna, Ø. (red), Areal og eiendomsrett, Universitetsforlaget, s. 511-530.

Sky, P.K. (2009). Effekter av jordskifte. I Ravna (red.) Perspektiver på jordskifte. Gyldendal akademisk, s. 367-396.

Sky, P.K. (2009). Tolkning av gamle jordskiftekart. I Ravna (red.) Perspektiver på jordskifte. Gyldendal akademisk, s. 608-633.

Sky, P.K.(2017). Jordskifte og eieendomshistorie. I Sky, P.K. og Berge, E. (red.). Hans Sevatdal. Eieendomshistorie. Hovudlinjer i norsk eieendomshistorie frå 1600-talet fram mot nåtida. Universitetsforlaget, s. 383-390.

Fagartikler

Sky, P. K. (2000). Hva kan vi lese ut av gamle jordskiftekart? Vestlandsk Landbruk, nr. 10, s.8-10.

Sky, P.K. (2001). Jordskifte i andre land - organisering og prosess. Kart og Plan, Vol. 61, s. 43-52.

Falkgård, S.M. og Sky, P.K. (2001). Høyt konfliktnivå i tvister om eiendomsgrenser. Vestlandsk Landbruk, nr. 7, s. 22-24.

Falkgård, S.M., Rognes, J.K. and Sky, P.K. (2001). Mediating Land Disputes: Experiences from the Norwegian Land Consolidation Courts. Kart og Plan, Vol. 61, s. 184-194.

Sky, P.K. (2002). Bruk av jordsmonnsdata til verdsetting av innmark. Kart og Plan, Vol. 62(1), s. 25-27.

Rognes, J.K. and Sky, P.K. (2002). Intervention in land disputes. Land Tenure Center Newsletter, Spring 2002, Number 83, University of Wisconsin-Madison, US ISSN 0276-0282, s. 9-10.

Nordmann, S. og Sky, P.K. (2002). Jordskifte på Island. Kart og Plan, Vol. 62(2), s. 107-112.

Haraldstad, H.S., Sevatdal, H. og Sky, P.K. (2003). Eiendomsfaglige problemstillinger i forbindelse med private veier. Lantmätaren, Nordisk hefte, s. 24-28.

Ravna, Ø. og Sky, P.K. (2003). Eiendomsutforming og landskapsendring i det nordlige Spania - kan Galicias totusenårige landskap overleve det tredje årtusen? Kart og Plan, Vol. 63(1), s. 47-56.

Sky, P.K. (2003). Er konflikter om fast eiendom egnet for meglings? Kart og Plan, Vol. 63(4), s. 242-246.

Rognes, J.K. og Sky, P.K. (2005). Mekling i konflikter om fast eiendom. Kart og Plan, Vol. 65(1), s. 33-45.

Mjøøs, L.B. og Sky, P.K. (2007). Viktige lovendringer innenfor norsk landmåler- og jordskiftevirksomhet. Lantmätaren, Nordisk hefte, s. 8-9.

Sky, P.K. (2007). En kommentar til endringene i jordskifteloven i Ot.prp.nr. 78 (2004-2005). Kart og Plan, Vol. 67(4), s. 232-242.

Rognes, J.K. og Sky, P.K. (2008). Rettsmekling i norske eiendomskonflikter. Kart og Plan, Vol. 68(4), s. 226-232.

Sky, P.K. (2009). Land consolidation can have a positive impact on the cultural landscape - an example from Cyprus. Kart og Plan, Vol. 69(3), s. 147-151.

Mykland, S., Rognes, J., Sky, P.K., Hoddevik, C.L. og Laskemoen, L.M. (2009). En studie av rettsforlik i norske tingretter. Kart og Plan, Vol. 69(4), s. 236-244.

Lande, K. og Sky, P.K. (2011). Behandling av private vegger som jordskiftesak. Kart og Plan, Vol. 71(3), s. 193-201.

Konferansebidrag med publisering

Rognes, J.K. and Sky, P.K. (2001). Mediation in Land Consolidation and in Boundary Disputes. Paper, Second International Conference on Land Management, Anglia Polytechnic University, London, 18 s.

Falkgård, S.M., Rognes, J.K. and Sky, P.K. (2001). Mediating Land Disputes: Experiences from the Norwegian Land Consolidation Courts. Paper, The Fourteenth Conference of the International Association for Conflict Management, Paris. 18 s.

Sky, P.K. (2002). Land Consolidation Organized in a Special Court - Experiences from Norway. Paper, The International Conference on "Land Fragmentation and Land Consolidation in CEEC". Technische Universität München, 9 s.

Falkgård, S.M. and Sky, P.K. (2002). Mediation as a Component in Land Consolidation. FIG XXII International Congress, TS7.4, Washington D.C. USA, 10 s.

Sky, P.K. (2003). Land Tenure Disputes; Suitable for mediation? 2nd FIG Regional Conference - UrbanRural Interrelationship for Sustainable Environment, TS10.2, Marrakech, Morocco, 7 s.

Rognes, J. and Sky, P.K. (2008). Legal mediation of land disputes. European Surveyors Congress, The Council of European Geodetic Surveyors, Strasbourg, 16 s.

Sky, P.K. (2009). Mediation in boundary disputes. The boundary, The Council of European Geodetic Surveyors, Bergen University College and Norwegian Association of Chartered Surveyors. 9 s.

Notater / rapporter

Sky, P.K. (2000). Forhandling, forhandlingsplanlegging og urbane jordskifter. Notat, Prosjekt: Samarbeid om bedre arealutnyttelse i byer og tettsteder, Miljøverndepartementet, Landbruksdepartementet og Kommunal- og regionaldepartementet, 27 s.

Sky, P.K. (2000). Arronderingsberegninger og kapitalisering av arronderingseffekter ved bruk av ATBprogrammet. Kompendium, Institutt for landskapsplanlegging, Norges landbrukshøgskole, 33 s.

Goodale, M.R.G. and Sky, P.K. (2000). A Comparative Study of Land Tenure, Property Boundaries and Dispute Resolution: Examples from Boliva and Norway. Working Paper no. 34. North America Series, Land Tenure Center, University of Wisconsin-Madison, 32 s. [Også publisert på elektronisk form i Research in Agricultural and Applied Economics, University of Minnesota]

Sky, P.K. (2001). Jordskifte i Galicia. Rapport 2/2001, Institutt for landskapsplanlegging, Norges landbrukshøgskole, 25 s.

Sky, P.K. (2002). Effekter av jordskifte - Et litteraturstudium. Rapport nr. 1/2002, serie B. Institutt for landskapsplanlegging, Ås-NLH, ISBN 82-575-6064-2, 38 s.

Sky, P.K. (2002). Arronderingsberegninger og analyse av romlige ved jordskifte. Rapport nr. 2/2002, serie B. Institutt for landskapsplanlegging, Ås-NLH, ISBN 82-575-6070-7, 38 s.

Sevatdal, H. og Sky, P.K. (2003). Eigedomsteori. Rapport nr. 1/2003, serie D, Institutt for landskapsplanlegging, Ås-NLH, ISBN 82-575-6073-1, 119 s.

Sky, P.K. (2008). A comment on changes in the Norwegian Land Consolidation Act. Rapport nr. 1/2008, serie B. Institutt for landskapsplanlegging, UMB, ISBN 825760928, 16 s.

Sky, P.K. og Aasen, I. (2014). Jordskifteloven 2013 - Hurtigliste, hva er nytt i jordskifteloven og lovspeil, kompendium, Høgskolen i Bergen, 55 s.

Filmer

Ravna, Ø. og Sky, P.K. (2004). Eiendomsutforming og landskapsendring i Galicia. Film, 27. min. Mini-DV, Samoedna Film og Institutt for landskapsplanlegging.

Ravna, Ø. og Sky, P.K. (2005). Land consolidation and landscape changes in Galicia. Film, FIG Working Week and 8th International Conference of the Global Spatial Data Infrastructure in Cairo, TS29.4, Egypt, 16-21 April 2005.

Ravna, Ø. og Sky, P.K. (2005). Deildegasten. Film, 1 min. Mini-DV, Samoedna Film [bidrag til konkurransen «Bittelitt» på Tromsø internasjonale filmfestival og Nordnorsk filmsenter].

Ravna, Ø. og Sky, P.K. (2005). Om å kreve sak for jordskifteretten. Film, 8 min. Mini-DV, Samoedna Film.

Ravna, Ø. og Sky, P.K. (2005). Soleis skal jord skiftast. Film, 34 min, Mini-DV, Samoedna Film. [Film produsert på oppdrag for Landbruksdepartementet]

Ravna, Ø. og Sky, P.K. (2006). The land consolidation court of Norway. A court for landed property and land rights. Film, 34 min, Mini-DV, Samoedna Film [engelsk versjon av overnevnte film]

Sky, P.K., Mykland, S. og Rognes, J. (2007). Rettsmekling i jordskifteretten - fra konflikt til løsning. Film, DVD, 56 min. Mediesenteret, Høgskolen i Bergen.

Sky, P.K., Mykland, S. og Rognes, J. (2008). Rettsmekling i jordskifteretten - fra konflikt til løsning. Informasjon til parter som skal møte til rettsmekling. Film, DVD, 25 min. Mediesenteret, Høgskolen i Bergen. [kortversjon av overnevnte film]

Sky, P.K., Mykland, S. og Rognes, J. (2008). Court-based mediation in the Land Consolidation Court - from conflict to resolution. Film, DVD, 25 min. Mediesenteret, Høgskolen i Bergen. [engelsk versjon av overnevnte film]

Sky, P.K., Mykland, S. og Rognes, J. (2008). Mediación legal en el Tribunal de Concentración Parcelaria - desde el conflicto a la resolución. Film, DVD, 25 min. Mediesenteret, Høgskolen i Bergen. [spansk versjon av overnevnte film]

Bokomtaler

Sky, P.K. (2000). Using Assisted Negotiation to Settle Land Use Disputes - A Guidebook for Public Officials. Bokomtale Kart og Plan, Vol. 60, s. 258.

Sky, P.K. (2002). Jordskifteloven med kommentarer. Bokomtale, Tidsskrift for Rettsvitenskap, Universitetsforlaget, s. 776- 779.

Sky, P.K. (2002). Lov og rett i landbruket. Bokomtale, Kart og Plan, Vol. 62(4), s. 248.

Sky, P.K. (2011). Lovene som endra kulturlandskapet. Bokomtale, Kart og Plan, Vol. 71(3), s. 224.

Kronikker

Lyng, A.M. og Sky, P.K. (2011). Rypejegere - vis måtehold. Kronikk i Nationen 21. juli 2011. s. 18.

Sky, P.K. (2011). Fortsatt positiv holdning til jakt? Kronikk i Sogn Avis 22.august 2011, s. 18.

Skovsgaard, T.L. og Sky, P.K. (2012). Nabokrangler og grensekonflikt. Kronikk, Nationen 31. mars 2012, s. 26.

Sky, P.K. (2013). Jordskifte og korrupsjon i Spania. Debatt, Vårt land 2. september 2013, s. 23.

Sky, P.K. (2013). Fagkrav til jordskifte. Kronikk, Nationen 11. desember 2013, s. 19.

Sky, P.K. (2014). Er rettssikkerheten i fare? Kronikk, Advokatbladet, nr. 2, s. 48-49.

Sky, P.K. (2016). Det skapes historie i Gulating. Sogn Avis (121) s. 3.



LINE HVINGEL

Projektleder, Landinspektør, ph.d.

Byplanlægning, fysisk planlægning, planjura, arealforvaltning, forvaltningsret, digital forvaltning, geodata, geografisk infrastruktur, GIS

DATE OF BIRTH

April 28. 1975

NATIONALITY

DK

CIVIL STATUS

Gift

EDUCATION

Cand. Geom. / Landinspektør. Aalborg Universitet, Danmark. 9/1996-1/2004
Landmåling, matrikulære arbejder, arealforvaltning, byplanlægning, GIS, geografisk data infrastruktur, digital forvaltning

Ph.d. Aalborg Universitet, Danmark. 2005-2009
Fast Ejendoms Retsforhold, Matriklen

MEMBERSHIPS

TRAINING

Adjunkt-kursus, 2012.

YEAR OF EMPLOYMENT

2015

KEY QUALIFICATIONS

Byplanlægning, fysisk planlægning, planjura, arealforvaltning, forvaltningsret, digital forvaltning, geodata, geografisk infrastruktur, GIS

LANGUAGE SKILLS

DANSK

ENGELSK

FRANSK

TYSK

SPEAKING

Mother tongue

Very good

Fair

Basic

READING

Mother tongue

Very good

Fair

Basic

WRITING

Mother tongue

Very good

Fair

Basic

OTHER SKILLS

EMPLOYMENT RECORD

2015 -

COWI, Danmark
Projektleder. Fysisk planlægning, lokalplanlægning, GIS-analyser, miljøvurderinger, borgerinddragelse, forskning

2015 -

Aalborg Universitet, Danmark
Ekstern lektor. Undervisning

2015 -

København Universitet, Danmark
Censor. Bedømmelse, eksamenscensor

| | |
|-----------|--|
| 2012-2015 | Aalborg Universitet, Danmark Lektor. Undervisning og forskning |
| 2009-2012 | Aalborg Universitet, Danmark Adjunkt. Undervisning og forskning |
| 2005-2009 | Aalborg Universitet, Danmark Ph.D. Undervisning og forskning |
| 2004-2005 | SVAJ, Danmark Konsulent. Fysisk planlægning |

WORK EXPERIENCE DK

SELECTED PROJECTS

| | |
|--|---|
| (2017) KORTLÆGNING OG ANALYSE AF DANMARKS VESTKYST | KORTLÆGNING OG ANALYSE AF VESTKYSTEN. Projektleder. En samlet kortlægning og analyse som vil danne grundlag for udvikling af en fælles destinationsplan på tværs af en geografi på 550 kilometer og mange lokale, heraf officielle organisationer såvel som frivillige foreninger i spil, på tværs af kommuner såvel som regioner. |
| (2016) JAMMERBUGT KOMMUNE | KORTLÆGNING AF OPTIMALE BOSÆTNINGSMULIGHEDER AF FLYGTNINGE. Projektleder. Ved anvendelse af Geografisk Informations System samt en model for vægtning af betydende parametre opstilles en robusthedsmodel ift. hvor det vil være mest optimalt at placere flygtninge med opholdstilladelse Opstille projektets grundstruktur og beregningsmodel |
| (2016) ERHVERVSSTYRELSEN | LOKALPLANER OG BESKATNING. Projektleder. Undersøgelse af digitaliserbarheden af lokalplaner ift. høstning af oplysninger om den forventede (planlagte) byggeriet Opstilling af arbejdsgange og fagekspert ift. fortolkning |
| (2016) ERHVERVSSTYRELSEN, KOMMUNERNES LANDSFORENING, SKATTEMINISTERIET | KL – LOKALPLANER OG SKAT. Projektdeltager. Undersøgelsen af lokalplanlægningens efterliv – det vil sige, hvilke tilladelser og dispensationer, der følger efter lokalplanens vedtagelse og inden byggeriet er færdigt realiseret. Opstilling af eksisterende proces og flow af data ifm. tilladelse og dispensationer givet ifm. byggeprojekter |
| (2016) KOMMUNERNES LANDSFORENING | UDVIKLING AF LOKALPLANLÆGNINGEN. Projektdeltager. Undersøgelser- og udviklingsprojekt af de kommunale processer ifm. udarbejdelse af lokalplaner. Undersøge og opstille kommunale praksisser på området. |

(2016)
KOLDING KOMMUNE HELHEDSPLEANER I LUNDERSKOV OG VAMDRUP. Projektdeltager.
Udarbejdelse af helhedsplaner for Lunderskov og Vamdrup
Baggrundsanalyser og udarbejdelse af helhedsplan gennem borgerinddragelse.

(2016)
ENERGISTYRELSEN KPT KYSTNÆRE HAVMØLLER. Projektdeltager.
Miljøundersøgelse af mulige placeringer af kystnære havvindmøller
Konfliktanalyser og miljøvurderinger

LØBENDE LOKALPLANER. Projektleder.
7 stk.

LØBENDE KOMMUNEPLANTILLÆG. Projektleder.
2 stk.

LØBENDE TILLADELSE OG DISPENSATIONSANSØGNINGER. Projektleder.
2 stk.

LØBENDE FORSKNINGSANSØGNINGER. Projektleder.
5 stk.

PUBLICATIONS

Baaner, L. & H. T. Anker, L. Hvingel, 2016: 'Nye perspektiver på dansk areallovgivning – om geodata og digitalisering'. In: Nordisk Administrativt Tidsskrift. Nr. 3/2016, 93. årgang.

Baaner, L. & L. Hvingel. 2015: 'Spatiality of Environmental Law'. In: Journal for European Environmental & Planning Law. Volume 12, p. 173-188

Hvingel L. & L. Baaner. 2015: 'Mature e-Government based on spatial information'. In: Conference proceeding, International Federation of Surveyors, FIG Denmark

Hvingel L. & L. Baaner. 2014: 'Mature e-Government based on spatial information - legal implications'. In: International Journal of Spatial Data Infrastructure Research, Vol- 9, P. 131-149

Schrøder, L., Hvingel, L. T, Hansen, H. S. & Skovdal, J. H. 2014: 'GIS Readiness Survey 2014'. Geoforum Perspektiv, Vol. 13, No. 24-2014, 2014, p. 28-31.

Galland, D., Enemark, S., Møller, J., Sørensen, E.M., Hvingel, L & L. Schrøder. 2015: 'International Manual of Planning Practice: Denmark'. In International Manual of Planning Practice. ed. The International Society of City and Regional Planners, 2014.

Enemark, S., Hvingel, L. & D. Galland. 2014: 'Land administration, planning and human rights'. In: Planning Theory, 2014. Publied online 10 January 2014.

Kaugure, L., Gylling, C., Johansen, E.D., Graugaard, B. & L. Hvingel. 2013: 'Administrating Marine Interests In The Sea of Data'. In: Geoforum Perspektiv - Tidsskrift for Geografisk Information, Vol. 23, 01.05.2013, p. 38-46.

Hansen, H.S., Hvingel, L. & L. Schrøder. 2013: 'Open Government Data - A key Element in the Digital Society'. In Lecture Notes in Computer Science, Vol. 8061, p. 167-180*

Hvingel, L., Aunsborg, C., Christensen, F.K. & Sørensen, M.T. 2012: 'Adjustment of legally binding local plans', Conference paper, Planning Law Property Rights Conference, Association of Planning Schools in Europe

Stigsen, T.K., Weber, M. & Hvingel, L. 2011: 'Marine Spatial Data Infrastruktur – hvad er status for en infrastruktur for geografisk data til søs i Danmark', Reviewed paper in Geoforum Perspektiv, Geoforum Denmark, Volume 20, p. 65-79.

Schrøder, L., Hvingel, L., Hansen, H.S. & Jensen, B.H. 2011: 'Towards connected governance', Reviewed paper in S Zlatanova, H Ledoux, E Fendel & M Rumor (red), Urban and Regional Data Management: UDMS Annual 2011Balkema Publishers, A.A. / Taylor & Francis The Netherlands, Leiden, s. 151.

Christensen, F.K., Hvingel, L. & Bolet, L. 2011: 'Hvad går den nye lov om privat fællesvej ud på? ', in Landinspektøren, The Danish Surveyor Association, Volume 1, p. 28-30

Hansen, H.S., Schrøder, L., Hvingel, L. & Christensen, J.S. 2011: 'Towards Spatially Enabled e-Governance – A Case Study on SDI implementation', Reviewed paper in International Journal of Spatial Data Infrastructures Research, The European Committee, vol 6, s. 73 - 96.

Post, A., Hvingel, L. & Møller, J. 2011: 'Lokalplanlægning i Danmark 2009-2011 : 2. delrapport', Aalborg Universitetsforlag

Schrøder, L., Hvingel, L. & Hansen, H.S. 2010: 'E-Government and Geographical Information Based Collaboration Patterns', Reviewed paper in Lecture Notes in Computer Science, Springer Berlin Heidelberg, vol. 6267, s. 204-218.

Hansen, H.S., Schrøder, L., Hvingel, L. & Christensen, J.S. 2010: 'Er det offentlige Danmark parat til geografisk baseret digital forvaltning?', Reviewed paper in Geoforum Perspektiv, Geoforum Denmark, Volume 18, p. 14-21.

Post, A., Hvingel, L. & Møller, J. 2010: 'Lokalplanlægning i Danmark 2009-2011 : 1. delrapport', Aalborg Universitetsforlag

Hvingel L. 2009: Ph.d. dissertation, 'Matriklen' ('The Cadastre'), pages 272

Line Hvingel, Projektleder, COWI, lthv@cowi.dk, 0045 4176 3960

PROFESSIONAL
REFERENCES

COWI

**Fortegnelse over bedømmelsesudvalg til
stilling Assistant Professor in Energy Planning (201706) ved PLAN**

Navn: Professor mso Brain Vad Mathiesen

Arbejdssted: PLAN, AAU

E-mail: bvm@plan.aau.dk

Navn: Senior Researcher Marie Münster

Arbejdssted: DTU

E-mail: maem@dtu.dk

Akademisk Råd har taget stilling til, at medlemmer af bedømmelsesudvalget er sagkyndige inden for stillingsområdet på et niveau, der mindst svarer til det, der forudsættes for stillingen, dog ikke under lektorniveau.

Assistant Professor in Energy Planning (201706)

Position No.

201706

At Technical Faculty of IT and Design, Department of Planning, Copenhagen a position as Assistant Professor in Energy Planning open for appointment from 1 August 2017 or soon hereafter. The position is available for a period of 3 years.

The Department of Development and Planning conducts research and teaching on development and planning in a broad sense, including social science aspects as well as more technical aspects of development, and with a focus on environmental, international as well as administrative dimensions.

Job description

Research areas will be within energy planning with a focus on smart energy systems, feasibility studies and public regulation. Special attention is given to market and energy system analysis of large-scale integration of renewable energy and heating technologies as well as a special focus on the design of heating strategies for European countries as part of activities in the Heat Roadmap Europe research projects. Teaching will primarily be in Sustainable Cities and Sustainable Energy Planning and Management at the bachelor as well as at the master level, but also in other study programmes at the University.

You may obtain further professional information from Professor mso Brian Vad Mathiesen, Department of Planning, e-mail: bvm@plan.aau.dk tel.: +45 9940 7218 or Henrik Lund, Department of Planning, e-mail: lund@plan.aau.dk tel.: +45 9940 8309.

Qualification requirements:

Appointment as an Assistant Professor presupposes scientific qualifications at PhD-level or similar scientific qualifications. The research potential of each applicant will be emphasized in the overall assessment. Appointment as an Assistant Professor cannot exceed a period of four years in total at Aalborg University in a temporary position (appointment at Assistant Professor level cannot exceed a period of eight years in total in Denmark). The application must contain the following:

- A statement outlining your reasons for applying, and intentions and visions with, the position.
- Your curriculum vitae, including personal data, educational background, scientific qualifications, dissemination skills, participation in committees and boards, and additional qualifications relevant for the position.
- Copies of relevant diplomas (Master of Science and PhD). On request you could be asked for an official English translation.
- A complete list of publications.
- Publications you wish to be considered by the assessment committee. You may attach up to 5 publications.
- A specification of your teaching qualifications relative to the teaching portfolio. If this is not enclosed you must include an explanation for its absence.
- References/recommendations.

An assessment committee will assess all candidates. The applications are only to be submitted online by using the "Apply online" button below.

For further information concerning the application procedure please contact Nickie Hermansen by mail nkh@adm.aau.dk or phone (+45) 9940 7902 Information regarding guidelines, ministerial circular in force, teaching portfolio and procedures can be seen [here](#).

Workplace

Copenhagen

Agreement

Employment is in accordance with the Ministerial Order on the Appointment of Academic Staff at Universities (the Appointment Order) and the Ministry of Finance's current Job Structure for Academic Staff at Universities. Employment and salary are in accordance with the collective agreement for state-employed academics.

Deadline

29/03/2017

Apply online

Aalborg University (AAU) conducts teaching and research to the highest level in the fields of humanities, engineering, and natural, health, and social sciences.

[top](#)

PERSONAL INFORMATION

Marie Münster



 Produktionstorvet 426, 2820 Kongens Lyngby (Denmark)

 +45 46775166

 maem@dtu.dk

 <http://www.dtu.dk/english/service/phonebook/person?id=38824&tab=2&q=dtupublicationquery>

Sex Female | Date of birth 26/05/1974 | Nationality Danish

WORK EXPERIENCE

2012–Present

Senior Researcher

System Analysis, DTU Management Engineering, Technical University of Denmark (Denmark)

Specialization:

National energy systems modelling (Balmorel, EnergyPLAN, STREAM) and scenario analysis. Renewable energy technologies - including waste and biomass conversion technologies; combined heat and power production, biofuel production (including anaerobic digestion and thermal gasification) as well as district energy systems.

Marie Münster has extensive international experience from her professional career. During her research work, she has cooperated with international partners in Danish, Nordic and European research projects. She also contributes regularly to international conferences in her field of research. This has ensured a strong international network, particularly to fellow researchers from international research institutions. This supplements her international network formed while working as a consultant in Rambøll with projects in Ghana, Latvia and the Nordic countries. Master studies included a three months research stay in Costa Rica as well as study tours to Tanzania and South Africa.

2010–2012

Researcher

System Analysis, Risø DTU/ DTU Management Engineering (Denmark)

2009–2010

Research assistant

System Analysis, Risø DTU (Denmark)

2006–2009

PhD candidate

Development and Planning, Aalborg University / System Analysis, Risø DTU (Denmark)

2000–2006

Energy consultant

Rambøll (Denmark)

EDUCATION AND TRAINING

Jun 2016–Jan 2017

Project and business manager

Harvard Business School, Boston (United States)

From Project to Competitive Advantage - Pasteur Program 2016 - with the Danish Innovation Fund

Sep 2011–Dec 2011

Professional project leader

Technical University of Denmark, Lyngby (Denmark)

Project management, tools and planning

2006–2009 PhD in Energy System Analysis and Waste to Energy technologies
Aalborg University (Denmark)

1995–2000 MSc. in Energy Planning
Aalborg University (Denmark)

PERSONAL SKILLS

Mother tongue(s) Danish

Other language(s)

| | UNDERSTANDING | | SPEAKING | | WRITING |
|-----------|---------------|---------|--------------------|-------------------|---------|
| | Listening | Reading | Spoken interaction | Spoken production | |
| English | C2 | C2 | C2 | C2 | C2 |
| Norwegian | B2 | C1 | B2 | B2 | B1 |
| Swedish | B1 | C1 | B1 | B1 | B1 |
| Spanish | B1 | B2 | B2 | B1 | B2 |
| German | A2 | B1 | A2 | A2 | A2 |

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Communication skills - good communication skills gained through numerous presentations and lectures

Organisational / managerial skills Participation in 21 research projects of which:

- **Vice project leader** of the large Danish research project, FutureGas (2016-2019)
- **Work Package leader** in the large European research project Fostering the use of renewable energies for heating and cooling, progRESsHEAT (2015-2017)
- **Work Package leader** in the large Danish research project Co-Management of Energy and Transport Systems (COMETS) (2014-2019)
- **Project leader** of the large Danish research project, The Optimal Treatment of Waste (TOPWASTE) (2011-2014)

Job-related skills

- Member of the Programme Committee on Sustainable Energy and Environment under the Danish Strategic Research Council (2014)
- Evaluator for the Norwegian Research Council and for ForskEI (Energinet.dk)
- Evaluator at PhD committees at Norwegian University of Life Sciences and at Technical University of Denmark
- Reviewer to the international journals: Energy, Applied Energy and Waste Management
- Member of the Scientific Advisory Board of the Conference on Sustainable Development of Energy, Water and Environment Systems (2011)
- Course responsible of several PhD courses and on Energy System Analysis course in DTU Master of Sustainable Energy
- Supervisor on 6 PhD studies
- Supervisor on 14 master student projects
- Pedagogical coordinator, DTU Management Engineering

Digital competence

SELF-ASSESSMENT

| Information processing | Communication | Content creation | Safety | Problem solving |
|------------------------|-----------------|------------------|------------------|------------------|
| Proficient user | Proficient user | Proficient user | Independent user | Independent user |

Digital competences - Self-assessment grid

- good command of office suit (word processor, spread sheet, presentation software)
- good command of energy system models (Balmorel, EnergyPLAN, STREAM)
- good command of linear programming software

ADDITIONAL INFORMATION

Publications

Scientific journal articles (h-index 12)

- Lythcke-Jørgensen, CE, **Münster, M**, Ensinas, AV & Haglind, F 2016, 'A method for aggregating external operating conditions in multi-generation system optimization models' *Applied Energy*, vol 166, pp. 59-75. DOI: 10.1016/j.apenergy.2015.12.050
- Lythcke-Jørgensen, CE, Viana Ensinas, A, **Münster, M** & Haglind, F 2016, 'A methodology for designing flexible multi-generation systems' *Energy*, vol 110, pp. 34-54. DOI: 10.1016/j.energy.2016.01.084
- Persson, U & **Münster, M** 2016, 'Current and future prospects for heat recovery from waste in European district heating systems: A literature and data review' *Energy*, vol 110, pp. 116-128. DOI: 10.1016/j.energy.2015.12.074
- Bach, B, Werling, J, Ommen, TS, **Münster, M**, Morales González, JM & Elmegaard, B 2016, 'Integration of large-scale heat pumps in the district heating systems of Greater Copenhagen' *Energy*, vol 107, pp. 321-334. DOI: 10.1016/j.energy.2016.04.029
- Lythcke-Jørgensen, CE, Clausen, LR, Algren, L, Bavnthøj Hansen, A, **Münster, M**, Gadsbøll, RØ & Haglind, F 2016, 'Optimization of a flexible multi-generation system based on wood chip gasification and methanol production' *Applied Energy*. DOI: 10.1016/j.apenergy.2016.08.092
- Münster, M**, Ravn, H, Hedegaard, K, Juul, N & Söderman, ML 2015, 'Economic and environmental optimization of waste treatment' *Waste Management*, vol 38, pp. 486-495. DOI: 10.1016/j.wasman.2014.12.005
- Juul, N, **Münster, M**, Ravn, H & Ljunggren Söderman, M 2013, 'Challenges when performing economic optimization of waste treatment: A review' *Waste Management*, vol 33, no. 9, pp. 1918-1925. DOI: 10.1016/j.wasman.2013.04.015
- Münster, M**, Finnveden, G & Wenzel, H 2013, 'Future waste treatment and energy systems – examples of joint scenarios' *Waste Management*, vol 33, no. 11, pp. 2457-2464. DOI: 10.1016/j.wasman.2013.07.013
- Hedegaard, K & **Münster, M** 2013, 'Influence of individual heat pumps on wind power integration – Energy system investments and operation' *Energy Conversion and Management*, vol 75, pp. 673-684. DOI: 10.1016/j.enconman.2013.08.015
- Hansen, L-LP, Schröder, ST, **Münster, M**, Birkl, C, Ropenus, S, Morthorst, PE, Obé, E, Kötter, E, Huber, A, Costa, AIA & Kroff, P 2013, 'Policy schemes, operational strategies and system integration of residential co-generation fuel cells' *International Journal of Hydrogen Energy*, vol 38, no. 7, pp. 3050-3063. DOI: 10.1016/j.ijhydene.2012.11.093
- Lund, H, Hvelplund, F, Alberg Østergaard, P, Möller, B, Vad Mathiesen, B, Kamøe, P, Andersen, AN, Morthorst, PE, Karlsson, KB, **Münster, M**, Munksgaard, J & Wenzel, H 2013, 'System and market integration of wind power in Denmark' *Energy Strategy Reviews*, vol 1, pp. 143-156. DOI: 10.1016/j.esr.2012.12.003
- Münster, M**, Morthorst, PE, Larsen, HV, Bregnbæk, L, Werling, J, Lindboe, HH & Ravn, H 2012, 'The role of district heating in the future Danish energy system' *Energy*, vol 48, no. 1, pp. 47-55. DOI: 10.1016/j.energy.2012.06.011
- Münster, M** & Meibom, P 2011, 'Optimization of use of waste in the future energy system' *Energy*, vol 36, no. 3, pp. 1612-1622. DOI: 10.1016/j.energy.2010.12.070
- Münster, M** & Lund, H 2010, 'Comparing Waste-to-Energy technologies by applying energy system analysis' *Waste Management*, vol 30, no. 7, pp. 1251-1263. DOI: 10.1016/j.wasman.2009.07.001

Mathiesen, BV, **Münster, M** & Fruergaard, T 2010, 'Erratum to "Uncertainties related to the identification of the marginal energy technology in consequential life cycle assessments" [Journal of Cleaner Production 17 (2009) pp. 1331–1338]' *Journal of Cleaner Production*, vol 18, no. 12, pp. 1227-1227. DOI: 10.1016/j.jclepro.2009.11.017

Münster, M & Meibom, P 2010, 'Long-term affected energy production of waste to energy technologies identified by use of energy system analysis' *Waste Management*, vol 30, no. 12, pp. 2510-2519. DOI: 10.1016/j.wasman.2010.04.015

Mathiesen, BV, **Münster, M** & Fruergaard, T 2009, 'Uncertainties related to the identification of the marginal energy technology in consequential life cycle assessments' *Journal of Cleaner Production*, vol 17, no. 15, pp. 1331-1338. DOI: 10.1016/j.jclepro.2009.04.009

Münster, M & Lund, H 2009, 'Use of waste for heat, electricity and transport—Challenges when performing energy system analysis' *Energy*, vol 34, no. 5, pp. 636-644. DOI: 10.1016/j.energy.2008.09.001

Selected books/reports

Møller Andersen, F, Cimpan, C, Dall, O, Habib, K, Holmboe, B, **Münster, M**, Pizarro Alonso, AR & Wenzel, H 2016, *Alternatives for Future Waste Management in Denmark: Final Report of TopWaste*. Department of Management Engineering, Technical University of Denmark, Lyngby.

Karlsson, KB, **Münster, M**, Skytte, K, Pérez, CHC, Venturini, G, Salvucci, R & Pedersen, RBB 2016, *Nordic Energy Technology Perspectives 2016*.

Hansen, L-LP, Schröder, ST, **Münster, M** & Morthorst, PE 2011, *Analyses of models for promotion schemes and ownership arrangements*.

Münster, M, Morthorst, PE & Birkel, C 2011, *Assessment of Building Integrated Energy Supply and Energy Saving Schemes on a National Level in Denmark*. Danmarks Tekniske Universitet, Risø Nationallaboratoriet for Bæredygtig Energi, Roskilde.

Lund, H (ed.), Hvelplund, FK, Mathiesen, BV, Østergaard, PA, Christensen, P, Connolly, D, Schaltz, E, Pillay, JR, Nielsen, MP, Felby, C, Bentsen, NS, Meyer, NI, Tonini, D, Astrup, T, Heussen, K, Morthorst, PE, Møller Andersen, F, **Münster, M**, Hansen, L-LP, Wenzel, H, Hamelin, L, Munksgaard, J, Kamøe, P & Lind, M 2011, *Coherent Energy and Environmental System Analysis*. Department of Development and Planning, Aalborg University.

Lund, H, Hvelplund, F, Alberg Østergaard, P, Möller, B, Vad Mathiesen, B, Andersen, AN, Morthorst, PE, Karlsson, KB, Meibom, P, **Münster, M**, Munksgaard, J, Kamøe, P, Wenzel, H & Lindboe, HH 2010, *Danish Wind Power Export and Cost: CEESA (Coherent Energy and Environmental System Analysis) Research Project*. Department of Development and Planning, Aalborg University.

PhD thesis

Münster, M 2009, *Energy System Analysis of Waste-to-Energy technologies*. Ph.D. thesis, Department of Development and Planning, Aalborg University. Department of Development and Planning, Publication Series, no. 2009-12

**Fortegnelse over bedømmelsesudvalg til
stilling Postdoc in Statistics and Spatial Analysis of weather impacts on local fluctuations in e.g.
wind and demands data and distribution data for energy system analyses (P21706) ved PLAN**

Navn: Professor mso Brian Vad Mathiesen

Arbejdssted: PLAN, AAU

E-mail: bvm@plan.aau.dk

Navn: Professor mso Poul Østergaard

Arbejdssted: PLAN, AAU

E-mail: poul@plan.aau.dk

Akademisk Råd har taget stilling til, at medlemmer af bedømmelsesudvalget er sagkyndige inden for stillingsområdet på et niveau, der mindst svarer til det, der forudsættes for stillingen, dog ikke under lektorniveau.

Postdoc in Statistics and Spatial Analysis of weather impacts on local fluctuations in e.g. wind and demands data and distribution data for energy system analyses (P21706)

Position No.

P21706

At Technical Faculty of IT and Design, Department of Planning, Copenhagen/Aalborg a position as Postdoc in Statistics and Spatial Analysis of weather impacts on local fluctuations in e.g. wind and demands data and distribution data for energy system analyses is open for appointment from August 1. 2017 or soon hereafter. The position is available for a period of 2 years.

I dialogue with the employee it will be decided whether the workplace is in Aalborg or Copenhagen.

The Department of Development and Planning conducts research and teaching on development and planning in a broad sense, including social science aspects as well as more technical aspects of development, and with a focus on environmental, international as well as administrative dimensions.

Job description

In RE-INVEST we are opening a position within data management, statistics and big data analyses. The purpose of the position is to extend and build new distribution dataset for advanced energy system analyses (on e.g. electricity/production, demands aggregated for different consumer groups and sectors). The main focus of the position is to analyse, aggregate and understand data on wind and solar in Europe based on 1) local conditions, 2) weather and climate and 3) time as well as to describe methodologies to do so and link the findings to coherent international smart energy system analyses. Key competences in the position are:

- Advanced statistical methods
- Modelling of calibrated functions in time and space based on modelled climate parameters vs observations
- Experience with big data and python programming (or similar)
- Strong analytical skills
- Able to work independently with the overall project targets

The position is offered in Copenhagen or Aalborg. The tasks should be conducted in close collaboration with EMD International and other key RE-INVEST partners. (www.reinvestproject.eu)

You may obtain further professional information from Brian Vad Mathiesen bvm@plan.aau.dk , Phone: 99401 7218

Qualification requirements:

Appointment as Postdoc presupposes scientific qualifications at PhD-level or similar scientific qualifications. The research potential of each applicant will be emphasized in the overall assessment. Appointment as a Postdoc cannot exceed a period of four years in total at Aalborg University.

The application must contain the following:

- A motivated text wherein the reasons for applying, qualifications in relation to the position, and intentions and visions for the position are stated.
- A current curriculum vitae.
- Copies of relevant diplomas (Master of Science and PhD). On request you could be asked for an official English translation.

- Scientific qualifications. A complete list of publications must be attached with an indication of the works the applicant wishes to be considered. You may attach up to 5 publications.
- Dissemination qualifications, including participation on committees or boards, participation in organisations and the like. • Additional qualifications in relation to the position.
- References/recommendations.
- Personal data.

The applications are only to be submitted online by using the "Apply online" button below. An assessment committee will assess all candidates.

For further information concerning the application procedure please contact Nickie Hermansen by mail nkh@adm.aau.dk or phone (+45) 9940 7902

Information regarding guidelines, ministerial circular in force and procedures can be seen [here](#).

Workplace

Aalborg/Copenhagen

Agreement

Employment is in accordance with the Ministerial Order on the Appointment of Academic Staff at Universities (the Appointment Order) and the Ministry of Finance's current Job Structure for Academic Staff at Universities. Employment and salary are in accordance with the collective agreement for state-employed academics.

Deadline

Apply online

Aalborg University (AAU) conducts teaching and research to the highest level in the fields of humanities, engineering, and natural, health, and social sciences.

[top](#)

Det Tekniske Fakultet for IT og Design - Fortegnelse over sager godkendt af Dekanen i perioden 01.01.2017-20.03.2017

Kodeforklaring

A1: Ansættelse med opslag

A2: Ansættelse u/ opslag (tidsbegrænset)

1F: 1. forlængelse

2F: 2. forlængelse

3F: Forlængelse pga barsel/orlov/fastansættelse

G: Genansættelse

O: oprykning

(i) intern ansættelse (u) ekstern ansættelse

| | Periode Fra Til | | Institut | Kode |
|---|-----------------|----------|----------|------|
| Ansættelse/genansættelse af videnskabelige assistenter | | | | |
| Jeppe Veirum Larsen | 01.02.17 | 30.06.17 | Create | 1F |
| Pernille Bech-Larsen | 15.01.17 | 31.08.17 | Create | A2 |
| Vincent Mohammad Tavakoli | 01.03.17 | 30.06.17 | Create | A2 |
| Laurynas Siksnys | 01.03.17 | 28.02.19 | CS | 1F |
| Kasper Steen Fischer Topp | 01.02.17 | 30.06.17 | Create | 1F |
| Tomasz Minko | 01.05.17 | 31.08.17 | ES | 2F |
| Nichlas Korgaard Møller | 01.02.17 | 30.06.17 | CS | A2 |
| Lotte Christiansen | 20.02.17 | 19.02.18 | Create | A2 |
| Kasper Skou Ladefoged | 01.05.17 | 31.10.17 | Create | 1F |
| Lefteris Zervakis | 15.03.17 | 14.03.18 | CS | A2 |
| Nikolaj | 01.03.17 | 28.02.18 | PLAN | A1 |
| Giajenthiran Velmurugan | 01.03.17 | 28.02.18 | PLAN | A1 |
| Stine Bylov | 01.03.17 | 28.02.17 | PLAN | A1 |
| Leire Gorroño Albizu | 15.03.17 | 31.12.17 | PLAN | A2 |
| Xiaodong Duan | 09.04.17 | 31.12.17 | ES | A2 |
| Nurefsan Gür | 01.04.17 | 30.09.17 | CS | 1F |

Ansættelse/genansættelse af adjunkter (tidsbegrænset)

| | | | | |
|---------------------|----------|----------|--------|----|
| Gunvor Riber Larsen | 01.03.17 | 28.02.19 | Create | 1F |
|---------------------|----------|----------|--------|----|

Ansættelse/genansættelse af adjunkter (ikke tidsbegrænset)

Ansættelse af studieadjunkter

Ansættelse/genansættelse af PostDoc

| | | | | |
|-----------------------|----------|----------|----|----|
| Marco Muniz | 01.03.17 | 28.02.19 | CS | 1F |
| Jannick Kirk Sørensen | 01.03.17 | 28.02.18 | ES | 1F |

Ansættelse af lektorer (tidsbegrænset)

Ansættelse af lektorer (tidsubegrænset)

Ansættelse af studielektorer

Ansættelse/genansættelse af professorer

| | | | | |
|------------|------------|------------|------|----|
| Bo Weidema | 01.05.2017 | 30.04.2021 | PLAN | 1F |
|------------|------------|------------|------|----|

Ansættelse/genansættelse af professorer MSO

| | | | | |
|------------------|----------|----------|--------|----|
| Erik de Graaff | 01.04.17 | 31.03.18 | Plan | 2f |
| Jan Østergaard | 01.01.17 | 31.12.17 | ES | A2 |
| Stefania Serafin | 01.04.17 | 31.03.20 | Create | 1F |

Adjungeret professor

| | | | |
|--------------------------|----------|----------|------|
| Maria Rosário Partidário | 01.02.17 | 31.01.22 | Plan |
| Klavs Birkholm | 01.02.17 | 31.01.22 | Plan |

Adjungeret lektor

Professor Emeritus

| | | | |
|-----------------|----------|----------|------|
| Per Christensen | 01.04.17 | 31.03.20 | PLAN |
|-----------------|----------|----------|------|

Lektor Emeritus

Orlov

| | | | |
|----------------|----------|----------|------|
| Paola Valero | 01.02.17 | 31.01.18 | PLAN |
| Jesper Raakjær | 10.04.17 | 31.12.20 | PLAN |

Opsigelser

| | | |
|---------------------------|----------|--------|
| Ali Zakaria Djebbara | 31.01.17 | Create |
| Kasper Vinther | 31.03.17 | ES |
| Elias Melvin Christiansen | 31.01.17 | Create |
| Ole Pihl | 31.08.17 | Create |
| Andrea Hernandez | 28.02.17 | Create |
| Daniel Roetter | 31.03.17 | ES |
| Michael U. Hensel | 31.05.17 | Create |
| Anne Juhler Hansen | 28.02.17 | Create |
| Petur Olsen | 16.03.17 | CS |

Opslag af stillinger

Videnskabelig assistent i problem-baseret læring i relation til naturvidenskab, teknologi,

| | | | |
|--|----------|----------|------|
| ingeniørvidenskab og matematik (STEM) (V21701) | 01.03.17 | 28.02.18 | PLAN |
|--|----------|----------|------|

| | | | |
|--|----------|----------|--------|
| Five-year research professorship in digital design and | 01.07.17 | 30.06.22 | Create |
|--|----------|----------|--------|

Overflyttelser, ændring i timetal

| | | | | |
|---------------------|----------|----------|----|-----|
| Hans-Peter Schwefel | 01.03.27 | 30.04.17 | ES | 60% |
|---------------------|----------|----------|----|-----|

Godkendte sager af dekanen TECH fra den 01.01.2017-20.03.2017

Stipendieopslag:

Media, Architecture and Design, Institut for Arkitektur og Medieteknologi (7-16080)
Media, Architecture and Design, Institut for Arkitektur og Medieteknologi (7-16081)
Electrical and Electronic Engineering, Institut for Arkitektur og Medieteknologi (7-16082)
Media, Architecture and Design, Institut for Arkitektur og Medieteknologi (7-16083)
Media, Architecture and Design, Institut for Arkitektur og Medieteknologi (7-16084)
Media, Architecture and Design, Institut for Arkitektur og Medieteknologi (7-16085)
Media, Architecture and Design, Institut for Arkitektur og Medieteknologi (7-16086)
Media, Architecture and Design, Institut for Arkitektur og Medieteknologi (7-16087)
Media, Architecture and Design, Institut for Arkitektur og Medieteknologi (7-16088)
Media, Architecture and Design, Institut for Arkitektur og Medieteknologi (7-16089)
Media, Architecture and Design, Institut for Arkitektur og Medieteknologi (7-16090)
Electrical and Electronic Engineering, Institut for Arkitektur og Medieteknologi (7-16092)
Media, Architecture and Design, Institut for Arkitektur og Medieteknologi (7-16093)
Media, Architecture and Design, Institut for Arkitektur og Medieteknologi (7-17002))

Tildeling af stipendium:

Elias Melvin Christiansen, Institut for Arkitektur og Medieteknologi, indskrives pr. 1. februar 2017 (7-16090)
Andrea Hernandez Bueno, Institut for Arkitektur og Medieteknologi, indskrives pr. 1. marts 2017 (7-16093)
Mahmoud Alimohammadi, Institut for Datalogi, indskrives pr. 1. maj 2017 (7-16094)
Anne Juhler Hansen, Institut for Arkitektur og Medieteknologi, indskrives pr. 1. marts 2017 (7-17004)
Ask Greve Jørgensen, Institut for Planlægning, ansat pr. 1. januar 2017 (20-16075)
Line Sand Knudsen, Institut for Arkitektur og Medieteknologi, ansat pr. 1. januar 2017 (7-16087)
Sofie Linnebjerg, Institut for Arkitektur og Medieteknologi, ansat pr. 1. februar 2017 (7-16060)
Ali Adjorlu, Institut for Arkitektur og Medieteknologi, ansat pr. 1. februar 2017 (7-16081)
Stine Maria Lourcing Nielsen, Institut for Arkitektur og Medieteknologi, ansat pr. 1. febr. (7-16084)
Mikkel Poulsen, Institut for Arkitektur og Medieteknologi, ansat pr. 1. febr. (7-16089)
Fanny Barbara Giordano, Institut for Arkitektur og Medieteknologi, ansat pr. 1. febr. (7-16086)
Taewoong Lee, Institut for Arkitektur og Medieteknologi, ansat pr. 1. febr. (7-16082)
Cecilie Breinholm Christensen, Institut for Arkitektur og Medieteknologi, ansat pr. 1. febr. (7-16083)
Ali Zakaria Djebbara, Institut for Arkitektur og Medieteknologi, ansat pr. 1. februar (7-16088)
Chaudhary Muhamad Aqduş Ilyas, Institut for Arkitektur & Medieteknologi, ansat pr. 1. april 2017 (7-16085)
Noor Ul Huda, Institut for Arkitektur & Medieteknologi, ansat pr. 1. april 2017

Tildeling af stipendium u/opslag:

Tomasz Izydorczyk, Institut for Elektroniske Systemer, indskrives pr. 1. marts 2017



AALBORG UNIVERSITET

Fakultetskontoret ENGINEERING, SUND
og TECH
Hermansen

Dokument dato: 27.02.2017

Dokumentansvarlig: Nickie Hermansen

Senest revideret: 27.02.2017

Senest revideret af: Nickie Hermansen

Sagsnr.:

Sagsfremstilling

Overskrift Shortlisting i forbindelse med bedømmelsesproces

Sagsbehandler: Nickie Hermansen

Sagsfremstilling: Dekanerne på SUND, ENGINEERING og TECH har besluttet at undersøge mulighederne for indførsel af shortlisting med det sigte at effektivisere bedømmelsesprocessen.
Inden der igangsættes et pilotprojekt, skal Akademisk Råd høres. Der vil blive igangsat et pilotprojekt på ph.d.-området.

Shortlisting i korte træk:

Ansættelsesudvalget gennemgår alle ansøgninger umiddelbart efter ansøgningsfrist og vurderer hvilke kandidater, der samlet set bedst opfylder kvalifikationskravene, så kun de ansøgninger, der fagligt vurderes relevante sendes til bedømmelsesudvalg. Formanden for bedømmelsesudvalget indgår som en fast del af ansættelsesudvalget.

Baggrund og formål:

Der er nedsat et fagligt udvalg, der skal kvalificere processen og principperne for shortlisting på ph.d.-området. Det faglige udvalg består af ph.d.-skoleledere fra hvert fakultet samt prodekanen for forskning på TECH. Det faglige udvalg er blevet hørt og er kommet med nedenstående anbefalinger og kommenteringer.

Anbefalinger fra det faglige udvalg:

Det faglige udvalg ønskede, at det på ph.d.-området var bedømmelsesudvalget, der selv shortlistede ansøgerfeltet. Grunden hertil var, at de ønskede, at programlederne, som er en del af bedømmelsesudvalget, skulle sikre de faglige hensyn i udvælgelsen. Dette er dog ikke lovligt.

Det faglige udvalg ønskede også at undersøge mulighederne for administrative afslag. Dette er efterfølgende undersøgt ved HR-afdelingen og er stadig ikke en mulighed.

Nogle af medlemmerne af det faglige udvalg var i tvivl om, hvor stor en effektivisering shortlisting vil give på ph.d.-området, idet bedømmelserne på dette område er korte.

Det faglige udvalg anbefalede, at:

-
- Alle kvalificerede som udgangspunkt bedømmes.
 - Der som minimum skal ske tilbundsgående faglig bedømmelse af 5 ansøgere, medmindre der er færre ansøgere, eller der er færre ansøgere, når åbenlyst ikke-kvalificerede ansøgere fravælges.

Indstilling: Det indstilles, at Akademisk Råd drøfter ovenstående.

Bilag: Principper for shortlisting



AALBORG UNIVERSITET

Fakultetskontoret ENGINEERING, SUND og
TECH
Hermansen

Dokument dato: 27.02.2017

Dokumentansvarlig: Nickie Hermansen

Senest revideret: 27.02.2017

Senest revideret af: Nickie Hermansen

Sagsnr.:

Bilag til sagsfremstilling: Principper for Shortlisting

Shortlisting i korte træk:

Ansættelsesudvalget gennemgår alle ansøgninger umiddelbart efter ansøgningsfrist og vurderer hvilke kandidater, der samlet set bedst opfylder kvalifikationskravene, så kun de ansøgninger, der fagligt vurderes relevante sendes til bedømmelsesudvalg. Formanden for bedømmelsesudvalget indgår som en fast bestanddel i ansættelsesudvalget.

Principper/proces ifm. shortlisting:

- Der oplyses om processen i alle stillingsopslag.
- Der nedsættes et ansættelsesudvalg tidligt i rekrutteringsprocessen.
- Bedømmelsesformanden indgår fast i ansættelsesudvalget.
- Som udgangspunkt vælges minimum 5 ansøgere til bedømmelse medmindre der er færre ansøgere, eller der er færre ansøgere, når åbenlyst ikke-kvalificerede er valgt fra.
- De ansøgere, der ikke sendes videre til bedømmelse får umiddelbart herefter besked om, at deres ansøgning ikke er gået videre.

Formål med shortlisting:

- En rekrutteringsproces der sikrer udvælgelse af de mest kvalificerede kandidater – hurtigt.
- At koncentrere bedømmelsesudvalgets indsats om de mest kompetente og interessante ansøgere.
- At reducere arbejdsbelastningen for bedømmelsesudvalget.
- At gøre det lettere at tiltrække internationale eksperter til bedømmelsesudvalgene.



AALBORG UNIVERSITET

Fakultetskontoret for
ENGINEERING, SUND og TECH

Dokument dato: 6.3.2017

Dokumentansvarlig: Troels H. Dissing

Senest revideret: 6.3.2017

Senest revideret af: Troels H. Dissing

Sagsnr.:

| | |
|--------------------------------|--------------------|
| Anledning / mødeforum og dato: | AR, 29. marts 2017 |
|--------------------------------|--------------------|

Sagsfremstilling

| | |
|-------------------------|--|
| Overskrift og varighed: | Præsentation af årets resultat 2016 (10 min) |
| Sagsbehandler: | Troels Hedegaard Dissing (Økonomiservice) |
| Sagsfremstilling: | <p>Resultat i forhold til budget (TEKNAT)</p> <p>I forhold til det budgetterede resultat med et overskud på 4,5 mio. kr. har TEKNAT realiseret et overskud på 28,3 mio. kr. hvilket svarer til en afvigelse på 1,5 procent i forhold til periodens realiserede eksterne indtægter.</p> <p>Bag resultatforbedringen på 23,8 mio. kr. er forhold, der trækker i både positiv og negativ retning.</p> <p>De største negative påvirkninger på årets resultat vedrører mindre indtægter fra frie studieaktiviteter 6,2 mio. kr., der var budgetteret, men som blev afvist af styrelsen. Derudover er der færre indtægter fra udenlandske selvbetalere på 5,3 mio. kr. og deltagerbetaling på 1,4 mio. kr.</p> <p>På tilskudsfinansieret aktivitet er der realiseret 24,2 mio. kr. mindre end budgetteret. Dette har dog haft en mindre effekt på årets resultat, da en stor del af afvigelsen udgøres af frikøb på ikke allerede ansat personale og indkøb af nyt anlæg.</p> <p>Der er forbedringer på en række poster, hvor en væsentlig del af disse forbedringer relaterer sig til den forsinkede indflytning på Thomas Manns Vej, som både har haft indflydelse på forbrugsomkostninger, personaleomkostninger, afskrivninger og husleje. Derudover er den største enkeltstående afvigelse på andre forbrugsomkostninger, på den ordinære drift. Det er en kombination af overforbrug på nogle enheder og mindre forbrug på andre herunder fakultetet hvor der bl.a. er forbrugt mindre til markedsføringsaktiviteter samt aktiviteter under forskerskolen.</p> <p>Resultat i forhold til estimat ved 2. periode (TEKNAT)</p> <p>Ved 2. periodeopfølgning blev der estimeret med et resultat på 32,0 mio. kr. i overskud, mod et realiseret overskud på 28,2 mio. kr., hvilken er en afvigelse på 3,8 mio. kr. Bag afvigelsen ligger afvigelser i både positiv og negativ retning.</p> <p>Manglende indtægter for frie studieaktiviteter på 6,2 mio. kr. har påvirket periodens resultat negativt samt færre indtægter på færdiggørelsesbonus end der var estimeret med pga. takstreduktion på 11 procent, hvilket udgør 6,5 mio. kr.</p> |

AR

DET TEKNISKE FAKULTET FOR IT OG DESIGN

/ TECHNICAL FACULTY OF IT AND DESIGN

29. MARTS 2017



AALBORG UNIVERSITET

Økonomi – opfølgning på årets resultat

Generelt rammer TEKNAT tæt på estimat, særligt fra 2. periode og frem

| Årsbudget/-estimat/-resultat | | | | | |
|------------------------------------|------------------------------|-------------------|-------------------|-------------------|-------------------|
| | | Anker | Estimat P1 | Estimat P2 | Resultat |
| 1.1 | Statstilskud | 1.129.470 | 1.129.470 | 1.137.319 | 1.128.285 |
| 1.2 | Salg af varer og tj. ydelser | 45.523 | 47.337 | 46.405 | 47.103 |
| 1.3 | Tilskudsfin. Aktiviteter | 430.757 | 423.966 | 407.728 | 406.541 |
| Eksterne indtægter i alt | | 1.605.750 | 1.600.773 | 1.591.452 | 1.581.929 |
| 2.1 | Interne Projektindtægter | 184.833 | 189.743 | 204.549 | 215.683 |
| 2.3 | Bidrag Fak/Inst | 331.743 | 340.895 | 326.634 | 340.507 |
| 2.4 | Intern Handel | 36.893 | 38.305 | 39.440 | 40.433 |
| Interne indtægter i alt | | 553.469 | 568.943 | 570.623 | 596.623 |
| 3.1 | Forbrugsomkostninger | -184.626 | -191.398 | -164.091 | -158.837 |
| 3.2 | Personaleomkostninger | -832.366 | -819.544 | -813.333 | -819.338 |
| 3.3 | Andre driftsomkostninger | -174 | -150 | -1.107 | 2.272 |
| 3.4 | Af- og nedskrivninger | -34.114 | -33.764 | -34.651 | -30.426 |
| Eksterne omkostninger i alt | | -1.051.279 | -1.044.856 | -1.013.182 | -1.006.328 |
| 4.1 | Interne Projektomkostninger | -184.780 | -189.743 | -204.550 | -215.788 |
| 4.2 | Interne Bidrag | -569.298 | -570.362 | -565.292 | -563.424 |
| 4.3 | Bidrag Fak/Inst | -331.743 | -340.895 | -326.634 | -340.416 |
| 4.4 | Intern Handel | -17.611 | -18.166 | -20.376 | -24.330 |
| Interne omkostninger i alt | | -1.103.431 | -1.119.166 | -1.116.852 | -1.143.957 |
| Finansielle poster | | | | | -11 |
| Resultat | | 4.509 | 5.694 | 32.041 | 28.255 |



Økonomi – Udfordringer 2017

- Ansættelse af nye medarbejdere
- Foretage korrigerende handlinger hvor nødvendigt
- Eksekvering på den eksterne portefølje
- Vækste i hjemtag på den eksterne portefølje



| | |
|---------------------|---|
| | <p>På forbrugsomkostninger er der realiseret færre end estimeret ved 2. periodeopfølgning, hvilket blandt andet skyldes manglende indflytning på Thomas Manns Vej. Den manglende indflytning har også påvirket de samlede huslejeomkostninger, hvor der også er blevet realiseret mindre end estimeret.</p> <p>Der er blevet realiseret flere personaleomkostninger end der var estimeret med ved 2. periodeopfølgning, hvilket blandt andet skyldes hensættelser på denne post hos BYG og PLAN.</p> <p>Derudover har TEKNAT realiseret færre afskrivninger i 2016, end forventet ved afrapporteringen ved 2. periodeopfølgning, særligt pga. mindre tab ved afgang end estimeret.</p> <p>2017</p> <p>I 2017 er særligt på det økonomiske område nedenstående fokuspunkter.</p> <ul style="list-style-type: none"> • Ansættelse af nye medarbejdere • Foretage korrigerende handlinger hvor nødvendigt • Eksekvering på den eksterne portefølje • Vækste i hjemtag på den eksterne portefølje <p>Årets resultat 2016 bliver gennemgået på mødet.</p> |
| Indstilling: | Resultat 2016 tages til efterretning |
| Bilag: | Powerpoint præsentation |

AR

DET TEKNISKE FAKULTET FOR IT OG DESIGN

/ TECHNICAL FACULTY OF IT AND DESIGN

29. MARTS 2017



AALBORG UNIVERSITET

Økonomi – opfølgning på årets resultat

Generelt rammer TEKNAT tæt på estimat, særligt fra 2. periode og frem

| Årsbudget/-estimat/-resultat | | | | | |
|------------------------------------|------------------------------|-------------------|-------------------|-------------------|-------------------|
| | | Anker | Estimat P1 | Estimat P2 | Resultat |
| 1.1 | Statstilskud | 1.129.470 | 1.129.470 | 1.137.319 | 1.128.285 |
| 1.2 | Salg af varer og tj. ydelser | 45.523 | 47.337 | 46.405 | 47.103 |
| 1.3 | Tilskudsfin. Aktiviteter | 430.757 | 423.966 | 407.728 | 406.541 |
| Eksterne indtægter i alt | | 1.605.750 | 1.600.773 | 1.591.452 | 1.581.929 |
| 2.1 | Interne Projektindtægter | 184.833 | 189.743 | 204.549 | 215.683 |
| 2.3 | Bidrag Fak/Inst | 331.743 | 340.895 | 326.634 | 340.507 |
| 2.4 | Intern Handel | 36.893 | 38.305 | 39.440 | 40.433 |
| Interne indtægter i alt | | 553.469 | 568.943 | 570.623 | 596.623 |
| 3.1 | Forbrugsomkostninger | -184.626 | -191.398 | -164.091 | -158.837 |
| 3.2 | Personaleomkostninger | -832.366 | -819.544 | -813.333 | -819.338 |
| 3.3 | Andre driftsomkostninger | -174 | -150 | -1.107 | 2.272 |
| 3.4 | Af- og nedskrivninger | -34.114 | -33.764 | -34.651 | -30.426 |
| Eksterne omkostninger i alt | | -1.051.279 | -1.044.856 | -1.013.182 | -1.006.328 |
| 4.1 | Interne Projektomkostninger | -184.780 | -189.743 | -204.550 | -215.788 |
| 4.2 | Interne Bidrag | -569.298 | -570.362 | -565.292 | -563.424 |
| 4.3 | Bidrag Fak/Inst | -331.743 | -340.895 | -326.634 | -340.416 |
| 4.4 | Intern Handel | -17.611 | -18.166 | -20.376 | -24.330 |
| Interne omkostninger i alt | | -1.103.431 | -1.119.166 | -1.116.852 | -1.143.957 |
| Finansielle poster | | | | | -11 |
| Resultat | | 4.509 | 5.694 | 32.041 | 28.255 |



Økonomi – Udfordringer 2017

- Ansættelse af nye medarbejdere
- Foretage korrigerende handlinger hvor nødvendigt
- Eksekvering på den eksterne portefølje
- Vækste i hjemtag på den eksterne portefølje

