

Program PHD course and graduate fellowship program

Personalized Telehealth, Informatics and Person-centered Technology

Venue: August 27 - September 1 2017 at Aalborg University

Introduction

The Transatlantic Telehealth Research Network (TTRN) is dedicated to developing cutting-edge research and innovation within telehealth. The research is interdisciplinary (medicine, engineering, nursing, organizational, economic, policy); and focuses on developing new diagnostic, preventive care and treatment methods/technologies for patients in their own homes utilizing telehealth. Problem-based, user-driven innovation is a key issue in the international and interdisciplinary TTRN. This PhD course and graduate fellowship program is developed within TTRN and held for the first time at Aalborg University August 2017.

Aims

This course will give a comprehensive introduction to personalized telehealth in an interdisciplinary approach by addressing challenges in future personalized healthcare systems from design of new technologies, data mining and implementation to evaluation of telehealth programs at scale.

The learning goals for the students are:

- To give students an insight into design, testing, implementation and evaluation of personalized telehealth, informatics and patient-centered technology for patients with chronic diseases
- To give students the possibility to create networks with other PhD students and international researchers within telehealth and health informatics

Evaluation

Each student will be given the possibility to present their research project for 20 minutes and have 10 minutes of feedback from faculty and other participants at the course.

The students need to write a 5-page paper covering a topic within telehealth and new knowledge they have gained at the course in order to pass the course. The paper has to have the following structure: Introduction, research question, method, results/findings, discussion, conclusion, reference list and acknowledgement.

The paper has to be submitted to Birthe Dinesen (bid@hst.aau.dk) and Nick Anderson (nranderson@UCDAVIS.EDU) by September 30 2017. Birthe and Nick will send the papers to the relevant lectures for comments and assessment. The paper need to be approved in order for you to pass the course. The Doctoral School in Medicine, Biomedical Science and Technology will give 3 ECTS for your participation in the course.

Fee for participation

It is free to participate in the course but a fee on 1900 kr is charged and covering:

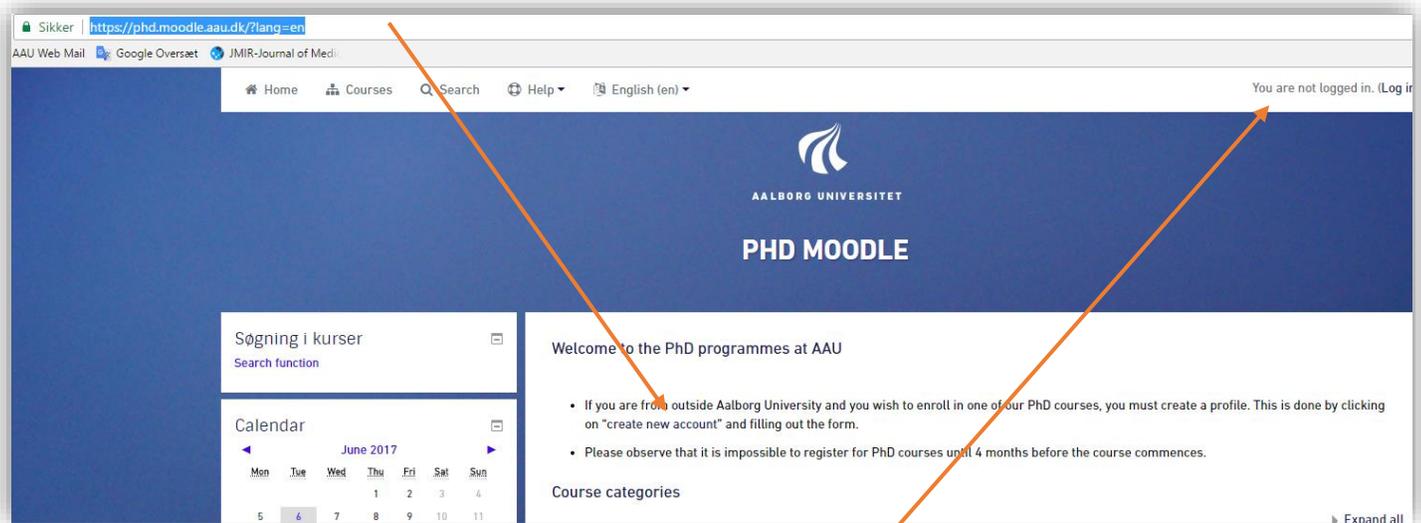
- Lunch everyday from Monday August 28 until Friday September 1 2017
- Social event and light dinner at Duus´s Cellar (<http://xn--duusvinklder-edb.dk/DK.aspx>) Sunday August 27
- BBQ- dinner and social event at Aalborg Sail Club Monday August 28
- Transportation for Viborg
- Dinner (restaurant to be decided) in Viborg Municipality Wednesday August 30
- Dinner at Princes Juliane Ship (<http://www.prinsesjuliana.dk/>) Thursday August 31
- Reception Friday September 1

We encourage everybody to take part in the social events as part of the course is also to expand your international network within telehealth.

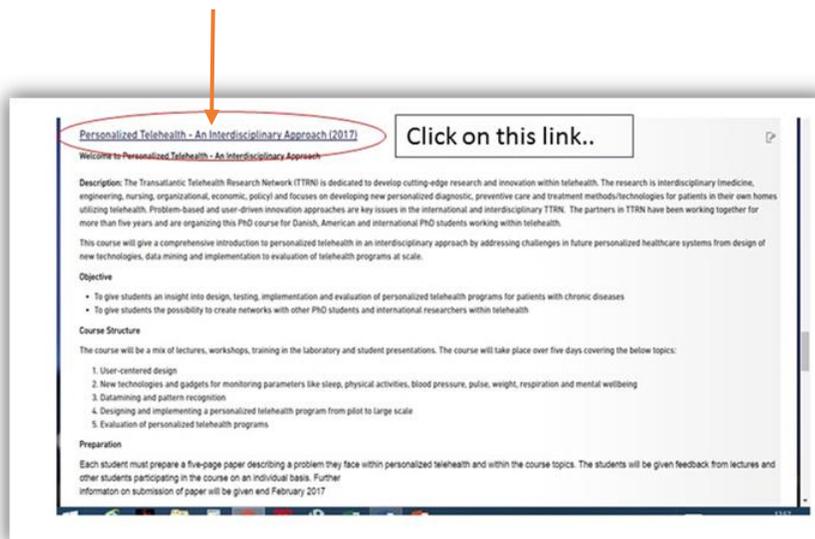
Registration for the course

1. You need to sign up for the course at two links:
 - a. <https://phd.moodle.aau.dk/?lang=en> and
 - b. <https://smiadm.hst.aau.dk/events/register.php?Event=42417>For international students please contact Birthe Dinesen for information on how to transfer the fee for the course.

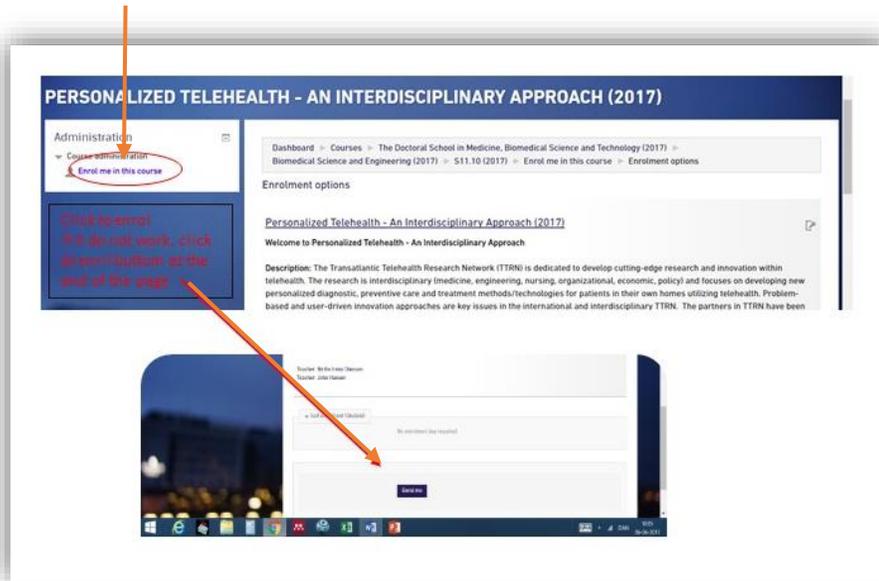
- At Moodle you need to create your own moodle profile, please follow the arrow



- After you have created a profile please login in here
- Then you are at the dashboard.
- Under “Search” please write “S11.10 (2017)” and press enter. The number is the number of the course.
- When you have found the course, you have to press at the title of the course in order to enroll



- You are now on the description of the course, press on the enroll bottom (there are two bottoms that you can use).



- Now you are enrolled and you can see your name on the list of participants



Literature

At moodle you can see and access literature for the lectures. Power points from the lectures will also be uploaded to the moodle.

Chairs

- Associate Professor Birthe Dinesen, SMI, Department of Health Science and Technology, head of Laboratory of Welfare Technologies – Telehealth & Telerehabilitation, Aalborg University,
- Professor Nick Anderson, University of California Davis, and University of California-CITRIS Health, UC Berkeley

Lecturer

- Associate Professor John Hansen, Medical Informatic, Laboratory of Cardiology, Aalborg University
- Assistant Professor Katherine Kim, University of California Davis, and University of California-CITRIS Health, UC Berkeley
- Associate Professor Helle Spindler, Department of Psychology, Aarhus University
- Associate Professor Kristian Kidholm CIMT, Odense University Hospital & Southern Danish University
- Associate Professor Jane Clemmensen, CIMT, Odense University Hospital & Southern Danish University
- Professor Jes Broeng, Department of Photonics Engineering, Danish Technical University
- Professor Lars Dittman, Department of Photonics Engineering, Danish Technical University

Venue

Aalborg University, Niels Jernes Vej 14 3-119, 9220 Aalborg East



Date	Content	Lecturer	Practical information's
Sunday August 27	4.30 pm Tour de Aalborg		We meet in front of Duus Wine Cellar
	6.00 pm Welcome & mutual presentation at Duus Vinkælder (Duus Wine Cellar) Venue: Duus Vinkælder Østerågade 9 9000 Aalborg http://xn--duusvinklder-edb.dk/		A light dinner will be served included in the fee.



Date	Time & program	Lecturer	Practical information's
Monday August 28	8.00 am Welcome Presentation of PhD course Introductions - 3 min "Ignite talk"	Nick Anderson Kathy Kim John Hansen Birthe Dinesen All participants	All participants will receive information on how to do the "Ignite talk"
	9.00-12.00 Participatory Design Introduction to the field, methods, persuasive technology Break (10.30-10.45) Design thinking approach and activity	Jane Clemensen Katherine Kim	
	12.00 pm Lunch		
	1.00-4.00 Behavior Change Behavior change theories eHealth literacy Case study discussion	Helle Spindler Birthe Dinesen Katherine Kim	
	4.00-5.00 Individual Work Applying learnings to individual research with faculty consultations	All participants	
	5.00 pm End of day		
	6.00 pm BBQ & Social event	Aalborg Sail Club BBQ & Social event at Aalborg Sail Club	Please bring clothes for going sailing.



Date	Time & program	Lecturer	Practical information's
Tuesday August 29	9.00-9:45 Introduction to mobile and environmental sensor landscape	John Hansen Nick Anderson Lars Dittman	Access to sufficient devices, consumer wearables, phone platforms, research monitoring
	9:45-10:30 Design approaches for using physiological monitoring in clinical research		Review of models (from literature and active research)
	10:30-10:45 Break		
	10:45—12:00 Co-develop protocol in small groups		Organize groups based on sensor tools, disease, environment and outcomes.
	12.00-1.00 pm: Lunch		
	1:00 – 4.30 Student Showcase I Student presentations of research projects (15 minutes each and 15 minutes feedback from faculty and other participants)	John Hansen (theory) Nick Anderson (system) Birthe Dinesen & Kathy Kim (design and healthcare practice)	Students will be given notice before the course start on what day they will be presenting their research project.
	4.30 End of day - The night in Aalborg on your own		



Date	Time & Program	Lecturer	Practical informations
Wednesday August 30	8.00-9:30 Systems and data design, Datamining and pattern recognition	Nick Anderson Lars Dittman	
	9:30-10:30 Case study examples – streaming, incident-based, qualitative data	Review distinct classes of data analytics on sensor and mobile data	
	10:30-10:40 Break		
	10:40–12:00 Systems demonstration workshop	Nick Anderson Lars Dittman John Hansen	
	12:00 Lunch to go		We will all get a “lunch to go” and drive for Viborg
	1:30 pm Visit at the research project Future Patient - telerehabilitation of patients with Heart Failure Regions Hospital Viborg 3.00 pm Viset at Viborg Healthcare Center 3.30 pm Research bazar – short lectures by Phd students on their research projects (Health coaches, tele-social- rehabilitation, telerehabilitation of patients who have undergone knee surgery, etc)	Malene Holligdal Birthe Dinesen	Private cars and a bus will take us to Viborg – one of the eldest town in Denmark Invitation will be sent to out to a broad group of stakeholders.



	Q &A and possibilities for discussion of future collaboration		
	5.00 Tour de Viborg		We will get a tour of the historic Viborg that is over 500 years old.
	6.30 pm dinner in Viborg		Included in the fee
	8.00 pm back to Aalborg		
	9.30 pm arrival to Aalborg		



Date	Time & Program	Lecturer	Practical information's
Thursday August 31	8.30 – 12.00 Personalized telehealth programs: from design to evaluation Implementation lifecycle and frameworks Break 10.00 -10.15 Measures for research, implementation science, and technology adoption Case study discussion	Birthe Dinesen Katherine Kim Kristian Kidholm	
	12.00 pm- 1.00 pm Lunch		
	1:00 – 4.30 Student Showcase II Student presentations of research projects (15 minutes each and 15 minutes feedback from faculty and other participants)	Birthe Dinesen Katherine Kim John Hansen Nick Anderson	Students will be given notice before the course start on what day they will be presenting their research project.
	4:30 pm End of day		
	7.00 pm Dinner at Princess Juliane Ship (http://www.prinsesjuliana.dk/)		Included in fee



Date	Content	Lecturer	Practical information's
Friday September 1	9.00 -11.00 Assessment of the value of telemedicine and e-health interventions	Kristian Kidholm	
	10:00 – 10:15 break		
	11.00 Innovation & Entrepreneurship within telehealth	Jes Broeng	
	12.00 pm lunch		
	12.30-2:00 pm Innovation & Entrepreneurship within telehealth	Jes Broeng	
	2:00 -2.30pm Evaluation of course	Birthe Dinesen Katherine Kim John Hansen Nick Anderson	
	2.30-3.30 Reception and networking	All	

Practical information's

Hotels

We recommend the two hotels as it is in the center of downtown Aalborg:

First Hotel

Rendsburggade 5, 9000 Aalborg

Phone: 98 10 14 00

You can booke on-line here: <http://www.firsthotels.dk/Vore-Hoteller/Hoteller-i-Danmark/Hoteller-i-Aalborg/First-Slotshotel-Aalborg/>

Scandic Aalborg City

Europa Plads 1, 9000 Aalborg

Phone: 70 12 51 51

You can booke on-line here: <https://www.scandichotels.dk/hoteller/danmark/aalborg/scandic-aalborg-city>

Coordinator in Aalborg

Birthe Dinesen

Associate Professor, PhD

Laboratory for Welfare Technologies - Telehealth & Telerehabilitation,

Integrative Neuroscience Research Group, SMI

Department of Health Science and Technology

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Facts about TTRN

The Transatlantic Telehealth Research Network (TTRN) is dedicated to developing cutting-edge research and innovation within telehealth. The research is interdisciplinary (medicine, engineering, nursing, organizational, economic, policy); and focuses on developing new diagnostic, preventive care and treatment methods/technologies for patients in their own homes utilizing telehealth. Problem-based, user-driven innovation is a key issue in the international and interdisciplinary TTRN.

Partners in the TTRN

Citris, UC Berkeley; Betty Irene Moore Nursing School; CHT, UC Davis Health; Cleveland Clini; Connected Health Innovation, Harvard Medical School, Boston; Center for Innovative Medical Technologies (CIMT), Odense University Hospital & Southern Danish University; Department of Photonics Engineering, Danish Technical University; Department of Psychology, Aarhus University and Department of Health Science and Technology, Aalborg University.

Vision paper

Within the TTRN we have published the paper: “Personalized telehealth in the future: a global research agenda” by Dinesen, Birthe Irene; Nonnecke, Brandie; Lindeman, David; Toft, Egon; Kidholm, Kristian; Jethwani, Kamal; Young, Heather M.; Spindler, Helle; Østergaard, Claus Ugilt; Southard, Jeffrey A.; Gutierrez, Mario; Anderson, Nick; Albert, Nancy M.; Han, Jay J.; Nesbitt, Thomas. Journal of Medical Internet Research, Vol. 18, Nr. 3, e53, 2016. Can be downloaded here: <https://www.jmir.org/2016/3/e53/>

Learn more about TTRN

<http://citris-uc.org/telehealth/project/transatlantic-telehealth-research-network/>