Curriculum Vitae

Thi My Chinh Chu

CONTACT INFORMATION

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DOCTORAL DEGREE

May 2015: **Ph.D. in Telecommunication Systems**, **Blekinge Institute of Technology, Karlskrona, Sweden**

- *Dissertation Title:* "On the Performance Assessment of Advanced Cognitive Radio Networks"

- *Advisor:* Prof. Dr.-Ing. Hans-Jürgen Zepernick

HIGHER EDUCATION QUALIFICATIONS

2005-2007: M. Eng., Electronics and Telecommunications, Hanoi University of Technology, Hanoi, Vietnam

- *Thesis Title:* "WiMAX Technology and Techniques of WiMAX Security"
- *Advisor:* Associate Professor Pham Minh Ha

1999-2004: B. Eng., Electronics and Telecommunications, Hanoi University of Technology, Hanoi, Vietnam

- *Thesis Title:* "Techniques for Voice Identification"

- *Advisor:* Dr. Do Trong Tu

PARENTAL LEAVE

- 85% from 1. November 2018 to 31. January 2019

- 100% from 1. February 2019 to 1. August 2019

CAREER DEVELOPMENT

2017-Ongoing: **Research Fellow, Department of Computer Science**, **Blekinge Institute of Technology, Karlskrona, Sweden**

- Participating in two sub-projects (SP1 and SP3) and the core project of the research project "Human-Centered Computing for Novel Visual and Interactive Applications (ViaTecH)":

SP1: Fundamentals of Quality Assessment for Human-Centered Computing in Novel Visual and Interactive Applications (also serving as Deputy Leader of SP1)

SP3: Networked Visual and Interactive Applications and Quality of Experience

Core: Human-Centered Computing for Novel Visual and Interactive Application

(Co-funded by the Knowledge Foundation, Synergy Programme, Industry partners are Axis Communications, Tobii Pro, Ericsson Research, and Wireless Independent Provider).

- Participating in one work package (WP) of the research project "Directed Air Data Link":

WP4: Waveform Design for High Doppler

(Co-funded by the Swedish Governmental Agency of Innovation Systems (Vinnova), Industry partner is Saab AB Karlskrona, Linköping, and Gothenburg).

- Participating in the 6G Experts Group WG8 of the Finnish 6G Flagship Research Program and contributing to the "6G White Paper on Machine Learning in Wireless Communication Networks".

- Teaching activities in courses: Advanced Topics in Telecommunication Systems (responsible and examiner), Applied Sound Technology, Advanced Topics in Computing, Advanced Wireless Communication Systems.

- Supervising laboratories: Applied Sound Technology, Perceptual Quality Laboratory with respect to Master's thesis projects, Advanced Wireless Communication Systems.

- Supervising and co-supervising Master's theses.

- Co-supervising two Ph.D. students, one in Computer Science (Visual and Interactive Computing) and one in Telecommunication Systems (Steganography in Immersive Media).

May 2015-2016: **Project Assistant, Department of Telecommunication Systems**, **Blekinge Institute of Technology, Karlskrona, Sweden**

- Participating in the research project "High-Quality Super Resolution Upscaling of Low-Quality and Low-Resolution Videos" funded by Harman International – A Samsung Company, Karlsbad, Germany.

- Participating in the education project ENGENSEC "Educating the Next Generation Experts in Cyber Security: The New EU-recognized Master's Program " funded by the European Commission under the Tempus programme.

- Participating in the contract education project "MIMO Techniques for Wireless Communications and Telemetry" funded by the Beijing Research Institute for Telemetry, Beijing, China.

- Teaching activities in courses: Advanced Topics in Computing, Advanced Wireless Communication Systems, Wireless Networks, Antenna Theory, Radio Communications, Advanced Radio Communications, Mobile Communications.

- Supervising laboratories: Radio Communications, Advanced Radio Communications, Antenna Theory.

- Mentoring Master's students regarding their theses.

2011-2015: Doktorand, Blekinge Institute of Technology, Karlskrona, Sweden

2007-2010: Engineer at the national radio station, the Voice of Vietnam

- Performing practical duties of communications and computer engineering:
  a) Technical training for editors and journalists
  b) Configuring and maintaining the radio communication network
  c) Measurements and assessments of the quality of radio broadcasting waves

- Working on projects:
  a) Solutions for importing, exporting data into VOV's broadcasting network and guarantee security of broadcasting (code: NCTK – TNVN 21/2006)
  b) Deploying the open source software "receiving/sending news" for VOV's Netia-Dalet broadcasting network (code: NCTK – TNVN 11/2007)
  c) Solution for remote access to supply news, information for VOV's Netia-Dalet broadcasting network of Vietnam Radio Broadcasting Station (code: NCTK – TNVN 13/2008)
  d) Initializing the private audio editing software for radio of the Voice of Vietnam (code: NCTK – TNVN 10/2009)

AWARDS AND DISTINCTIONS

2014: Invitation to the Second Women's Workshop on Communications and Signal Processing of the IEEE Communications Society Women in Communications Engineering (WICE), held in Princeton University, USA

2011-2015: Scholarship of the Vietnam Ministry of Education and Training

2008: Microsoft Certified Solutions Expert (MCSE) with Distinction

LANGUAGUES

Vietnamese: Native language

English: Fluent in speaking, listening, reading, and writing

Swedish: Capable to speak, listen, read, and write (Certificate D level)

RESEARCH EXPERIENCE

- Developing objective quality models based on visual perception
- Developing experimental frameworks for quantifying quality of visual stimuli as perceived by humans
- Designing, conducting, and statistical analysis of subjective experiments for visual applications
- Quality assessment and optimization for mobile multimedia systems
- Queue modeling and analysis of prioritized traffics for different multimedia services
- Steganography in immersive media
- Physical layer security for wireless communication networks
- Applying machine learning in wireless communication networks
- Designing efficient transmission algorithms/schemes for advanced wireless networks
- Developing spectrum access mechanisms and medium access control protocols for cognitive radio networks

RESEARCH INTERESTS

- Methodologies for subjective experiments for visual and interactive applications such as computer games, 360° video, virtual reality (VR), and augmented reality (AR)
- Analyzing visual information and interworking factors that contribute to immersive experiences
- Prioritized traffic scheduling to support different quality demands focusing on seamless connectivity for immersive media and interactive applications
- Quality of service (QoS) and quality of experience (QoE) for immersive media
- Optimization of transmission schemes to meet bandwidth hungry and delay sensitive services
- Designing algorithms to improve the quality of mobile multimedia systems
- Multimedia steganography including images, videos, computer games, 360° video, VR, and AR

- Queue modeling and performance analysis for ultra-reliable low latency communication applications such as networked immersive media
- Media access control protocols for multi-tier cellular networks

ACADEMIC ACTIVITIES

Education Activities:
- Teaching courses
- Supervising laboratories
- Supervising Master's theses
- Co-supervising Ph.D. theses

Delivered Keynote: IEEE International Conference on Communications and Electronics, Fall 2016
- Special Session on "Advances on Physical Layer Security for Wireless Communication Networks"

Reviewer for Journals and Conferences:
- IEEE Transactions on Wireless Communications
- IEEE Transactions on Communications
- IEEE Transactions on Vehicular Technology
- IEEE Access
- IEEE Communications Letters
- Wireless Communications and Mobile Computing
- IET Communications
- IEEE Global Communications Conference (GLOBECOM)
- IEEE International Conference on Communications (ICC)
- IEEE Vehicular Technology Conference (VTC)
- IEEE Wireless Communications and Networking Conference (WCNC)
- IEEE International Conference on Signal Processing and Communication Systems (ICSPCS)
- IEEE International Conference on Communications and Electronics (ICCE)
- IEEE International Conference on Advanced Technologies for Communications (ATC)

Session Chair:

- 2015 IEEE International Conference on Signal Processing and Communication Systems
- 2016 IEEE International Conference on Communications and Electronics
- 2017 IEEE International Conference on Signal Processing and Communication Systems

TPC Member:

- 2015 IEEE International Conference on Signal Processing and Communication Systems
- 2016 IEEE International Conference on Signal Processing and Communication Systems
- 2017 IEEE International Conference on Signal Processing and Communication Systems
- 2018 IEEE International Conference on Signal Processing and Communication Systems
- 2019 IEEE International Conference on Signal Processing and Communication Systems
- 2016 IEEE International Conference on Communications and Electronics
- 2016 IEEE Vehicular Technology Conference - Track "Cognitive Radio and Spectrum Management"

SKILLS

Computing Skills:

- Programming: C, C++, Phython
- Computing: Mathematica
- Simulation: Matlab, NS2, OPNET

Time Management Skills:

- Always meet many deadlines in my teaching, research, and supervisory duties
- Have extensive experience of juggling multi-tasks and bringing these to a successful end

Other Skills:

- Knowledge of research methodologies
- Knowledge of pedagogy methodologies
- Teamwork ability
- Writing and presenting reports

REFEREES

- Prof. Dr.-Ing. Hans-Jürgen Zepernick
  Blekinge Institute of Technology
  Valhallavägen 1, SE-371 79, Karlskrona, Sweden
  Email: hans-jurgen.zepernick@bth.se
  Mobile: +46 708 782 680

- Prof. Dr.-Ing. Markus Fiedler
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  Biblioteksgatan, SE-4374 35 Karlshamn, Sweden
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