Binational PhD- The Mission

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@AutSys-Conference
Majorca, Spain

FernUniversität in Hagen

KMUTNB

King Mongkut's University of Technology North Bangkok

Binational PhD in Information Technology & Computer Science

Offering a Thai & a German Doctorate Degree at the same time

from King Mongkut's University of Technology North Bangkok (KMUTNB), a leading Thai Technical University, and FernUniversität in Hagen, Germany's university with the most students.

Thesis supervised, worked out, and written in Thailand or/and Germany under supervisory of both Thai and German Experts.

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Apply Now!

Vision

▶ **Educate students and graduate PhDs which belong to
the 10% best and 10% most wanted ones in Thailand**

▶ Graduate students with high theoretical and practical knowledge as
compared to the world-wide standards

▶ Having work experience in the international communities
of reserachers and practitionars

▶ Showing the right hard- and soft skills in their areas of expertise

▶ at no additional costs

Current Problems

▶ **Two Killer questions** for most PhD-candidates:
→ What is the scientific merit, my thesis' novelty?
→ How is my work related to similar research in my area in the international community?

▶ **Major other problems:**
→ Limited language skills
→ Missing journal publications (with SCOPUS/ISI indexing)
→ Poor basic theoretical knowledge

President of KMITL and future chair of the Council of University Presidents of Thailand (CUPD)

KMUTNB and FernUniversität are Strong Partners since 2007!

▶ **Strong by cooperation and specialisation**

➢ Limiting the area of research to a single field
(Data Networks = Data Mining+ Network/Communication),
in which we can be strong and contribute well accepted
results to the international communities

➢ Deploying more human resources in one highly competitive
work area

➢ International supervision, learning English by (daily) use

➢ Using support of TRF and DAAD to obtain funds

Cont'd.

▶ **Being strong by real teamwork**

  ➢ Building flexible, innovative teams and supporting communication among students by suitable events and modern tools (Wiki's, AdobeConnect)

  ➢ More mutual discussion, critique and mutual support

  ➢ Providing additional knowledge and supervision according to individual needs; the contact point of FernUniverstät will be supporting this idea

  ➢ Developing true passion and strong engagement for your research task

*Hagen

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Nordrhein-Westfalen

FernUni Campus 1979 and 2014

FernUniversität in Hagen

▶ Founded by the state parliament of North Rhine-Westphalia in 1974

▶ _The_ distance teaching university for German-speaking Europe and all German-speaking people worldwide

▶ Germany's biggest university, with more than 80,000 students

▶ Only university in Germany whose entire degree programme (Bachelor's and Master's) can be studied in part-time mode
alongside work and family commitments

Modern Distance Education

FernUniversität in Hagen

Students in Faculties

| 12% | 34% | 40% | 14% |

- Faculty of Law: 12%
- Faculty of Business Administration & Economics: 34%
- Faculty of Humanities and Social Sciences: 40%
- Faculty of Mathematics and Computer Science: 14%

Reference: winter semester 2013/2014

Binational PhD

Prof. (cand. em.) Dr. Dr. Wolfgang A. Halang

General

- *Ph(ilosophiae) D(octor)* means teacher of philosophy *(licentia docendi)*.

- PhD is an academic degree obtainable by passing an examination.

- Whom does a PhD degree's quality depend on?

- There is a wide spectrum of PhD "programmes" ranging from "taught PhDs" over "structured programmes" to solely research-based PhDs.

German PhD

- The classical German approach is research-based.

- There are neither tuition fees nor any other costs.

- There are no restrictions relating to the research's duration.

- Self-study is expected to make up for knowledge deficiencies.

- The research results obtained must advance science by an "epsilon", which bears the risk to fail (mainly by giving up on the way).

- Classically, the research results are not published before the defence (as journal or conference contributions).

- The examination comprises presenting a thesis and defending it (usually a "rigorosum" is not required anymore).

- The thesis is usually published in form of a book.

Binational PhD

▶ What is the added value? Higher quality, prestige or is a just a fashion?

▶ Actually, more is obtained at almost the same effort.

▶ Regrettably, language requirements exist only in rare cases.

▶ Two diplomas issued by two universities vs.
one diploma issued by each university

▶ Two independent degrees issued by two universities in two countries
require an individual contract between both universities
for every candidate.

▶ Such contracts may be rather long and full of over-complicated,
superfluous provisions.

▶ Some ten years ago I extracted the essential aspects from several
contracts, and came up with a short single-page contract.

Cooperation Agreement

▶ In lieu of concluding an individual contract for each candidate, KMUTNB and FernUni agreed on the following procedure.

1. A candidate has to enrol as doctoral student at both universities according to the prevailing regulations.

2. Indicating the intention to pursue a binational doctorate, the candidate has to pass the admission processes for doctoral programmes as established by the pertaining faculties of both universities.

3. In the course of these admissions, from both universities one supervisor each is nominated and assigned to the candidate.

4. The candidate׳s doctoral research work shall be conducted at both universities.

Cooperation Agreement (cont'd)

5. The respective examination regulations of both universities valid at the time of thesis submission determine the admission to thesis defence and how the latter is carried through. Stipulations (6) and (7) guarantee the reconcilability of both sides' examination regulations.

6. As rapporteurs both supervisors are members of the examination committee at FernUni.

7. The candidate's thesis has to be orally defended both at KMUTNB and FernUni.

8. If the thesis has successfully been defended, the candidate is awarded the degrees *Doctor of Philosophy (PhD)* by KMUTNB, and *Doctor rerum naturalium (Dr. rer. nat.)* by Fern Universität in Hagen.

9. The respective examination regulations of both universities determine the modalities of submitting and publishing the thesis in its final form.

Potential Supervisors in Hagen

<first_name.last_name>@fernuni-hagen.de
www.fernuni-hagen.de/mathinf

▶ Prof. Dr. Jörg Desel
– Software Engineering

▶ (Prof. Dr. Dr. Wolfgang Halang
- Real-Time Systems, Safety-Related Computing, IT Security by Design)

▶ Prof. Dr. Jörg Keller
– Parallel Processing, VLSI, IT Security

▶ Prof. Dr. Zhong Li
– Nonlinear Dynamic Systems, Complex Networks, EMC, Swarm Intelligence

▶ Prof. Dr. W. Schiffmann
– Computer Architectures, Parallel Systems, Cloud Computing

▶ Prof. Dr. Herwig Unger
- Communication Networks, NLP

PhD@KMUTNB

Assoc.-Prof. Dr. Phayung Meesad

King Mongkut's University of Technology North Bangkok

Ph.D. in IT at KMUTNB

- Thai Program
  - Regular Program (Day Time Class): DIT (~ 40,000 Baht/Semester)
  - Special Program (Sat & Sun Class): S-DIT (100,000 Baht/Semester)
- International Program: Special Program (Evening Class): I-DIT (75,000 Baht/Semester)
- All Programs are managed by IT Faculty under Graduate College.
  - Entrance Written Exam & Thesis Proposal Oral Evaluation
  - English Proficiency requirement as announce by the Graduate College
- 4 Subjects (12 Credits) Require with GPA >= 3.0 before taking Qualifying Examination within 2 years
- Thesis Proposal can be submitted after passing Qualifying Examination.
- Thesis Progressive Defense can be taken after passing Thesis Proposal Defense at least 182 days or before final defense at least 30 days.
- The final defense can be conducted after approval of dissertation topic at least 365 days, after receiving all 36 credits of Thesis enrolled.

Supervisors at IT-KMUTNB

▶ Assoc. Prof. Dr. Phayung Meesad: Data Mining, Computational Intelligence, Machine Learning, Data Science, Big Data Analysis, Signal Processing, Business Intelligence.

▶ Assoc. Prof. Dr. Sirapat Boonkrong: Network Security, Wireless Network, Cloud Computing, etc.

▶ Asst.Prof.Dr. Nattavee Uttakrit: Knowledge Management, Information Security Management, Logistics and Supply Chain Management, and other topics related in IT and MIS.

▶ Asst.Prof.Dr. Thippaya Chintakovid: Human Computer Interaction, Knowledge Sharing, Factor Analysis, Web Technology.

▶ Asst.Prof.Dr. Maleerat Sodanil : Image Processing, knowledge transfer, Ontology, Semantic, Text Mining, Time Series Analysis.

▶ Asst.Prof.Dr. Montean Rattanasiriwongwut : Factor Analysis, Knowledge Management, Ontology, Applied Information Systems, Computer Education.

▶ Asst.Prof.Dr. Sakchai Tangwannawit: Customer Relationship Management, Enterprise Resource Planning, Business Information Systems, Applied Information Systems, Computer Education.

Supervisors at IT-KMUTNB (Cont.)

- Asst.Prof.Dr. Nalinpat Porrawatpreyakorn: Software Development, Software Requirements Analysis, Software Engineering, Knowledge Transfer,

- Asst.Prof.Dr. Pongpisit Wuttidittachotti: Web Programming, Mobile & Wireless, Data Network, Database Security.

- Asst.Prof.Dr. Nawaporn Wisitpongphan: Computer Network, Wireless Sensor Network, Vehicular Ad Hoc Networks, Smart Automotive, Routing Protocol, Social Network Analysis.

- Asst.Prof.Dr. Sunantha Sodsee: P2P Network, Evolutionary Computation, Data Mining, Search Engine Optimization, Recommender System, Information Security.

- Asst.Prof.Dr.Mahasak Ketcham: Image Processing, Pattern Recognition, Artificial Intelligence.

- Dr.Pudsadee Boonrawd: Data Mining, Text Mining, Artificial Intelligence, Artificial Neural Network, Ontology, Semantic Web

- Dr.Sucha Smanchat: Parallel Computing, Distributed Computing, Algorithms, Cloud Computing, Big Data