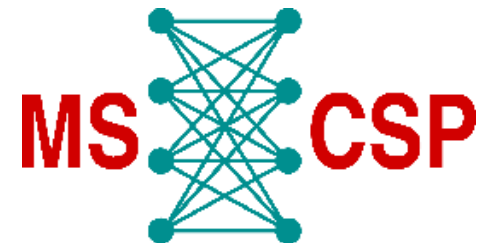

Preparing for a Global Career in Communications and Signal Processing

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Preparing for a Global Career in Communications and Signal Processing

- This year, our annual day of Information Technology on

Friday, June 23, 2017,

is dedicated to our **Master of Science in Communications and Signal Processing (MSCSP)** students and alumni.

- It includes presentations by selected international MSCSP alumni and current students.



Technische Universität Ilmenau
Master of Science in Communications and Signal Processing



Master of Science in Communications and Signal Processing

□ International Graduate Program at TU Ilmenau

- ⇒ all lectures, tutorials, and research tasks are in English
- ⇒ sponsored by the German government (currently no tuition fees)
- ⇒ successful 2-year program (4 semesters) since 2009
- ⇒ strong focus on cutting-edge **research**
 - research projects (2-nd and 3-rd semesters)
 - Master thesis (4-th semester)
 - students are encouraged to
 - report their work at leading international conferences and
 - publish in highest impact journals.

□ Excellent preparation for

- ⇒ leading doctoral programs
- ⇒ research and development positions in international companies

Master of Science in Communications and Signal Processing

- Suitable for good **Bachelors of Science** in
 - ⇒ electrical engineering
 - ⇒ communications engineering
 - ⇒ information technology
 - ⇒ media technology
 - ⇒ computer engineering
 - ⇒ biomedical engineering
 - ⇒ mathematics, physics, and related areas
- Starts in October (every winter semester)

Focus of the MSCSP Program

□ **Communications**

⇒ including physical layer concepts, protocols, and applications

□ **Signal processing** (the science behind our digital life)

⇒ branch of electrical engineering

that pulls meaning from the broad sources of data all around us

⇒ is at the heart of our modern world

□ **Fundamental concepts**, e.g.,

⇒ information theory, coding, modulation, (convex) optimization techniques, compressed sensing, tensor-based signal processing, machine learning, parameter estimation, array signal processing, adaptive filters

□ **Many applications** that lead to **rewarding career opportunities**, e.g.,

⇒ future wireless systems, channel modeling, antenna design, connected / autonomous vehicles, radar / sonar, wearable technologies, audio coding, hearing aids, multimedia systems, modern entertainment, biomedical signal processing, brain / computer interfaces, better and safer medical scans, biometric security, big data, stock valuation and prediction

Preparing for a Global Career in Communications and Signal Processing

□ TU Ilmenau

- ⇒ strives to maintain its international reputation for quality in teaching and research and
- ⇒ to provide students with an excellent education.

□ The international students at our university are among the best in the areas of communications and signal processing.

□ As an **MSCSP student** at TU Ilmenau, you have many options.

- ⇒ We not only offer a top-notch disciplinary education,
- ⇒ but also promote community-building activities beyond everyday student life.

□ Our **MSCSP alumni**

- ⇒ their capabilities and careers
 - important indication of the quality of the MSCSP program
- ⇒ form an important part of our international network
- ⇒ act as world-wide ambassadors of the MSCSP program
 - potential international research and project partners
 - help to recruit capable applicants (e.g., in their home countries)

Preparing for a Global Career in Communications and Signal Processing

- **Suggested presentation topics** for our MSCSP alumni and students
 - ⇒ personal and professional background in their home country
 - ⇒ undergraduate studies (e.g., where and what did they study)
 - ⇒ reasons for choosing the MSCSP program at TU Ilmenau
 - ⇒ experience during the MSCSP program at TU Ilmenau (from a personal and professional point of view)
 - This gives them an opportunity to point out the main differences to their home country and to summarize their research results (*technical part of the presentation*)
 - ⇒ personal and professional activities after their graduation (e.g., where do they work now and what is their job there)
 - Also in this part of the talk, they should share some of their most recent research results (*technical part of the presentation*)

Acknowledgements

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