PADERBORN UNIVERSITY

SUMMER SCHOOL

IN GERMANY

AUGUST 13-21, 2019

LEARN...

from renowned researchers of Paderborn University in lectures and lab tours on hot topics ranging from rescue robots, speech recognition, photovoltaics, data science in medical technology, wireless sensors

GET INVOLVED...

in 3-day projects in state-of-the-art labs - on mobile robot motion control, emotion recognition based on EEG, simulation of waveguides or analog ICs, design of capacitive sensors, etc.

EXPERIENCE...

campus life, Paderborn's 1200 year history, German culture

This summer school is exclusively for students of Xidian University.
Please contact 段小乐 <xlduan@xidian.edu.cn> for details on how to join.

https://go.uni-paderborn.de/summerschool2019xdu

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PROGRAM DETAILS

AUGUST 13-21, 2019

FIRST WEEK (4 DAYS): LECTURES AND LAB TOURS

- ➢ Introduction to Paderborn University, the Electrical Engineering School and it's master programs
- ➢ Cognitive technical systems for robot rescue operations (t.b.d.) + lab tour
- ➢ Micro-electromechanical systems for wireless sensors (Prof. Ulrich Hilleringmann) + lab tour
- ➢ Approximate computing: from logic synthesis to designing accelerators (Dr. Hassan Mohammadi)
- ➢ Signal processing and machine learning for speech and audio (t.b.d.)
- ➢ Concept of optical waveguides and their application (Prof. Jens Förstner)
- ➢ Data science in biomedicine and medical technology (Prof. Peter Schreier)
- ➢ Faster-than-at-speed test - a remedy for early life failures?! (Prof. Sybille Hellebrand)
- ➢ Introduction to VLSI design (Dr. Wolfgang Müller) + lab tour Heinz Nixdorf Institute
- ➢ Photovoltaic power supply - potential and conversion devices (Prof. Stefan Krauter) + lab tour

SECOND WEEK (3 DAYS): HANDS-ON PROJECTS

- ➢ Introduction to Mobile Robot Motion Control
- ➢ Emotion recognition based on EEG and signal processing
- ➢ PECVD layers for MEMS applications
- ➢ Design of a measurement system based on capacitive sensors
- ➢ Algorithmic Differentiation for Machine Learning
- ➢ Simulation of photonic crystal waveguides
- ➢ Analog IC Design and Simulation

SOCIAL PROGAM

- ➢ Tour of the historical city including town hall and cathedral
- ➢ Visit of the world's largest computer museum, the HNF
- ➢ Visit of the triangular shaped Wevelsburg and it's Nazi history
- ➢ Spare time to experience the city life of Paderborn

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