

## Biomedical Systems Engineering (BMSE)

Study Profiles:

I. BMSE

### A) Catalogue CORE

1. Digital Image Processing 1	X
2. Medical Acoustics: Audiology and Voice	X
3. Medical Acoustics: Technologies for Hearing Systems and Ultrasound	X
4. Medical Systems 1: Quantitative Physiology and Life-Supporting Systems	X
5. Medical Systems 2: Medical Instrumentation and Signal Processing	X

### B) Catalogue ELECTIVE

1. Remaining module of catalogue CORE	X
2. Advanced Control Systems	X
3. Advanced Topics in Signal Processing and Communication	X
4. Chemical Sensors and Actuators in Silicon Technology	X
5. Digital Image Processing 2	X
6. Digital Speech Transmission 1	X
7. Electronic and Optical Measurement Techniques	X
8. High Frequency Technology 1	X
9. High Frequency Technology 2	X
10. Identification and Control of Mechatronic Systems	X
11. Microfluidics – Bio-MEMS	X
12. Microwave Electronics	X
13. Modeling of Mechatronic Systems	X
14. Physical Sensors in Silicon Technology	X
15. Power Management in Integrated Circuits	X
16. Psychoacoustics and Methods for Listening Experiments	X
17. Radar Systems	X
18. Robotics and Man-Machine-Interaction 1	X
19. Robotics and Man-Machine-Interaction 2	X
20. Speech and Audio Signal Enhancement	X
21. Technical Acoustics	X

### C) Catalogue LABORATORY

1. Acoustic Virtual Reality	X
2. Acoustics	X
3. Analog and Mixed Signal Electronics	X
4. Analysis and Evaluation of Queues and Networks by Modern Simulation Tools	X
5. Digital Image Processing	X
6. High Frequency Technology Laboratory	X
7. Introduction to Medicine for Scientists and Engineers 1	X
8. Introduction to Medicine for Scientists and Engineers 2	X

9. MATLAB Advanced – Digital Signal Processing	X
10. Optimization Lab for Communication and Signal Processing Using MATLAB	X
11. Radar Laboratory	X
12. SMEAGOL – Small Embedded Advanced and Generic Objects	X

**D) Catalogue PROJECT**

1. Medical electronics	X
2. Other projects offered by FB 6	X

Please note that some information may have changed. You can find up-to-date information on [RWTHonline](#).