# Criteria for enrollment in GRIAT/ TECHNISCHE UNIVERSITÄT ILMENAU

| Programme | Previous Education | Aver. BSc Mark | Basic Knowledge in | Additional Requirements |
|---|---|---|---|---|
| **Communication and Signal Processing** | Bachelor degree (at least 6 Semester / 180 LPs) in Telecommunication Systems, Electrical Engineering, Information Technology | 4 | - Random processes, stochastics.<br>- Information Theory of Coding.<br>- Communication Systems.<br>- Telecommunications and networks.<br>- Bases of Digital Signal Processing.<br>- Analog and Digital Modulations Schemes.<br>- Signal Propagation.<br>- Linear algebra<br>- *Experience in Matlab, LabView, C++, Python* | Copy of the diploma with list of disciplines or transcript of records, curriculum vitae |
| **Research in Computer and System Engineering** | Bachelor of Science; Bachelor of Engineering in the appropriate program or related field | 4 | Computer Science:<br>- Data Structures and Algorithms course,<br>- Databases course,<br>- Networks course,<br>- Programming skills,<br>- Operating Systems | 1. Motivation for your bachelor thesis, the problem that was solved. The tasks. Algorithms, models and methods that were used, mathematical background. Characteristics of the project, complexity, which difficulties were solved and how.<br>2. A short story about why you need this master's program. What is your expectations? Why is the partnership between KNRTU-KAI-German university was chosen? How do you see yourself in the future?<br>3. Personal achievements and awards, including academic. Personal interests, priorities and plans, if they are related to the MSc programme. |
| **Automotive Engineering** | Bachelor of Science; Bachelor of Engineering in AE or related field | 4 | - vehicle dynamics,<br>- vehicle performance characteristics,<br>- braking systems,<br>- simulation program - MatLab Simulink | 1. CV in English (no particular form required)<br>2. translation of BSc certificate into English (Transcript of records)<br>3. Personal achievements and awards, including academic. Publications if there are any. |