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| Module title | | Abbreviation |
| Principles of Pattern Classification | | 11-KVM-152-m01 |
| Module coordinator | | Module offered by |
| Managing Director of the Institute of Applied Physics | | Faculty of Physics and Astronomy |
| ECTS | Method of grading | Only after succ. compl. of module(s) |
| 3 | numerical grade | -- |
| Duration | Module level | Other prerequisites |
| 1 semester | undergraduate | -- |
| Contents | | |
| <p>Signals such as images, but also acoustic records, spectra, electrical measurements often contain recurring patterns. These patterns are often classified and analysed by observers, e.g. by a doctor when analysing an ECG. More and more automatic procedures are adopted to take on these tasks and classify patterns. The lecture will discuss principles of different classifiers such as "minimum distance" and "maximum likelihood".</p> | | |
| Intended learning outcomes | | |
| <p>The students have specific and advanced knowledge in the field of pattern recognition. They know methods of classifying patterns in measuring data as well as ways to automatise these processes. They are able to apply these methods to practical problems.</p> | | |
| Courses (type, number of weekly contact hours, language — if other than German) | | |
| V (2) Module taught in: German or English | | |
| Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) | | |
| <p>written examination (approx. 90 to 120 minutes) or oral examination of one candidate each (approx. 30 minutes) or oral examination in groups (groups of 2, approx. 30 minutes per candidate) or project report (approx. 8 to 10 pages) or presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Assessment offered: Once a year, winter semester Language of assessment: German and/or English</p> | | |
| Allocation of places | | |
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| Additional information | | |
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| Referred to in LPO I (examination regulations for teaching-degree programmes) | | |
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| Module appears in | | |
| Bachelor' degree (1 major) Physics (2015) Bachelor' degree (1 major) Nanostructure Technology (2015) | | |