

University of Pretoria Yearbook 2018

Detection and estimation 732 (EOP 732)

Qualification	Postgraduate
Faculty	Faculty of Engineering, Built Environment and Information Technology
Module credits	32.00
Prerequisites	Theory of bayesian inference ETB732
Contact time	32 contact hours per semester
Language of tuition	Module is presented in English
Department	Electrical, Electronic and Computer Engineering
Period of presentation	Semester 2

Module content

Binary hypotheses, M hypothesis, decision criteria, performance. Estimation theory: Random parameters, Bayes estimation, multiple parameter estimation. Composite hypotheses. The general Gaussian problem. Performance bounds and approximations. Representations of random processes. Detection of signals-estimation of signal parameters, including detection in non-white noise, sufficient statistics. Signals with unwanted parameters, the composite hypothesis problem.

The information published here is subject to change and may be amended after the publication of this information. The [General Regulations \(G Regulations\)](#) apply to all faculties of the University of Pretoria. It is expected of students to familiarise themselves well with these regulations as well as with the information contained in the [General Rules](#) section. Ignorance concerning these regulations and rules will not be accepted as an excuse for any transgression.