

ELEN90011 Directed Studies

Credit Points:	12.5
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2016, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus. Semester 2, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 36 hours Total Time Commitment: 200 hours
Prerequisites:	Subject to interview with course coordinator
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements. Further details on the disability support scheme can be found at the Disability Liaison Unit website: http://www.services.unimelb.edu.au/disability/
Coordinator:	Prof William Shieh
Contact:	Prof William Shieh Email: shiehw@unimelb.edu.au (mailto:shiehw@unimelb.edu.au)
Subject Overview:	<p>AIMS</p> <p>Directed studies provide the students with broader experience in addition to the regular class based learning. The directed studies can be conducted in the forms of:</p> <ul style="list-style-type: none"> # Industrial internship or research placements in the research institutes based on the availability. This is only open to the students during their second semester who have achieved average of H2B and above in the first semester # Individually arranged supervised study of current research topics with staff members associated with the department of Electrical and Electronic Engineering <p>INDICATIVE CONTENT</p> <p>The examples of the research topics are:</p> <ol style="list-style-type: none"> 1 Cloud Computing, Content Distribution and Information Logistics; 2 Internet Services Energy Star Rating; 3 Energy Efficiency of Future Modulation Formats; 4 Low-Energy Fibre Access Networks; 5 Video Coding for Energy Efficient Telecommunications; 6 Fundamental Limits of Electronics and Photonics; 7 Broadband fibre wireless networks and systems; 8 Optimal design of few-mode fibres.
Learning Outcomes:	<p>INTENDED LEARNING OUTCOMES (ILO's)</p> <p>Having completed this subject it is expected that the student be able to:</p> <ol style="list-style-type: none"> 1 Keep abreast with the current trends and developments in the telecom industry

	<p>2 Acquire the first-hand experience in the basic practices in the telecom industry</p> <p>3 Obtain creative mathematical and computational skills necessary for the solution of complex theoretical and practical problems</p> <p>4 Develop an ability to successfully work independently with personal accountability in solving problems in telecommunications engineering</p>
Assessment:	Report not exceeding 5500 words due at the end of semester (approximately 105-120 hours of work), worth 80%, followed by an oral examination of no more than one hour duration towards the end of semester (approximately 25-30 hours of work), worth 20%. ILO's 1-4 are assessed in the submitted final report and oral exam.
Prescribed Texts:	None
Recommended Texts:	
Breadth Options:	This subject is not available as a breadth subject.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	<p>On completion of this subject, the students should have developed the following skills:</p> <ul style="list-style-type: none"> # Problem solving and analytical skills, # Critical and creative thinking, with an aptitude for continued self-directed learning; # Sense of intellectual curiosity; # Ability to interpret data and research results; # Ability to learn in a range of ways, including through information and communication technologies; # Capacity to confront unfamiliar problems; # Ability to evaluate and synthesise the research and professional literature; # Ability to develop models of practical applications and evaluate their performance by rigorous analytical means;
Related Course(s):	Master of Telecommunications Engineering