

**55. Emerging Engineering Technologies (EE133IU)**

Module designation	<i>This course will explore current breakthrough technologies and disruptive innovations that have recently emerged in the past few years. A close examination of the technology will be conducted to understand the application using the new technologies. The class is a series of seminars on each of the emerging technologies</i>
Semester(s) in which the module is taught	1, 2
Person responsible for the module	Dr. Nguyễn Đình Uyên
Language	English
Relation to curriculum	Specialization
Teaching methods	Lecture, lesson, homework.
Workload (incl. contact hours, self-study hours)	(Estimated) Total workload: 127.5 Contact hours (please specify whether lecture, exercise, laboratory session, etc.): lecture: 37.5 Private study including examination preparation, specified in hours: 90
Credit points/ECTS	3 credits/4.62 ECTS
Required and recommended prerequisites for joining the module	None



Module objectives/intended learning outcomes	Upon the successful completion of this course students will be able to:	
	<b>Competency level</b>	<b>Course learning outcome (CLO)</b>
	Knowledge	CLO1. Provide the depth of students' knowledge in a new and recently emerged technologies  CLO2. Provide the introduction into the applications for the emerging technologies
	Skill	CLO3. To apply the new and emerging technology in an application
	Attitude	



Content	<p><i>The description of the contents should clearly indicate the weighting of the content and the level.</i></p> <p>Weight: lecture session (3 hours)</p> <p>Teaching levels: I (Introduce); T (Teach); U (Utilize)</p>		
	<b>Topic</b>	<b>Weight</b>	<b>Level</b>
	Humanoid Robot.	1	I,T
	Drone Technology	1	I,T
	Artificial Intelligent Control System	1	I,T
	Microsoft Azure Cloud Computing Platform	1	I,T
	Hyperspectral Imaging	1	I,T
	3D printing technology	1	I,T
	Nano Technology	1	I,T
	IOT platforms	1	I,T
	5G communication system	1	I,T
	Blockchain applications	1	I,T
	Virtual Reality	1	I,T
	Sustainable engineering	1	I,T
	Environmental Ethics	1	I,T
Life Long Learning Competencies	1	I,T	
Case Studies	1	I,T	
Examination forms	Written Exam		



<p>Study and examination requirements</p>	<p>Assignments: All assignments need to be submitted on the due date. Otherwise, a penalty of 20% per day can be considered for each assignment.</p> <p>Policy on dishonesty: Students are expected to do their own work at all times. Any evidence of plagiarism or cheating will be treated as grounds for failure in the class.</p> <p>Grading The overall course grades will be assigned based on required standard or overall class distribution. The weights of the assignments and the examinations are:</p> <ul style="list-style-type: none"><li>- 30% for participation, attendance, Quiz, HW, project, and presentation</li><li>- 30% for midterm examination</li><li>- 40% for final examination</li></ul>
<p>Reading list</p>	<p><b>Textbooks:</b></p> <p>None</p>