

Modulbezeichnung (Kürzel)	Innovation Management (INOV)
Modulbezeichnung (eng.)	Innovation Management
Semester (Häufigkeit)	WPM (nach Bedarf)
ECTS-Punkte (Dauer)	5 (1 Semester)
Art	Wahlpflichtmodul
Sprache(n)	Englisch
Studentische Arbeitsbelastung	60 h Kontaktzeit + 90 h Selbststudium
Voraussetzungen (laut MPO)	
Empf. Voraussetzungen	
Verwendbarkeit	MII
Prüfungsform und -dauer	Klausur 1,5h oder mündliche Prüfung oder Studienarbeit
Lehr- und Lernmethoden	Vorlesung, Seminar, Studentische Arbeit
Modulverantwortliche(r)	J. Mäkiö

Qualifikationsziele

This course consists of two parts. The first part deals with flexible and original thinking and scientific writing. Students will learn the concepts of personal thinking preferences, elimination of mental blocks, techniques for creative thinking, idea selection and techniques for creative group processes.

The second part deals with the Open Innovation. Students will understand this new paradigm based on principles of integrated collaboration, co-created shared value, cultivated innovation eco-system, unleashed exponential technologies and extraordinarily rapid adoption. The probability of break-away improvements increases as a function of diverse multidisciplinary experimentation. As experiments cannot simply be conducted in isolation, students will learn collaborative learning and researching in order to accelerate the innovative process in direction tangible and particularly service-oriented intangible products and solutions.

With the advances in global information and communication technologies, the process and practices of innovation are evolving, so that innovation is a discipline that is moving from being something invented by a brilliant student/engineer/researcher to an ecosystem-centric view of innovation, where the ecosystem is often the distinguished unit of success.

Lehrinhalte

Innovation in engineering and software development, creative problem solving and idea generation, idea evaluation techniques, write workshop, major characteristics of the Open Innovation paradigm (OI2.0), innovation model based on extensive networking and co-creative collaboration between all actors in society, Industrial Patent Processes linking Innovation and Patentability, the use of Patent-Office-Databases, validating "patentability" and "innovation aspects", new business models associated to IoT and IoS paradigms, application of Service-Level Agreements to Innovation process, Intellectual Property Rights (IPR Management and Risk Analysis, Technology Readiness Levels (TRLs) and Innovation capabilities, understanding and managing the process of generating Research and Innovation Actions

Literatur

Savransky, S. D., Engineering of Creativity: Introduction to Triz Methodology of Inventive Problem Solving: Introduction to Triz Methodology of Inventive Problem Solving, CRC Press, 2000.

Missikoff, M., Canducci, M., Maiden N., Enterprise Innovation: From Creativity to Engineering, WILEY, 2015.
Intel Labs Europe, EU-OISPG: Open Innovation 2.0: A new paradigm EU HORIZON2020, Extract from Part 19 - Commission Decision C(2014)4995 https://esto.nasa.gov/files/trl_definitions.pdf

Lehrveranstaltungen

Dozenten/-innen	Titel der Lehrveranstaltung	SWS
A. W. Colombo, E. Wings	Innovation Processes for ICPS	2
J. Mäkiö	Creativity Techniques and Scientific Writing	2