

RECTORS SEMINAR

Interdisciplinary and intersectoral education
and research in modern universities

Part I

10 February 2021 | 10:00 – 12:00 (CET)

Welcome Address

IGOR PAPIČ | Rector, University of Ljubljana



Prof. Dr. Igor Papič is the Rector of the University of Ljubljana and a professor at the Faculty of Electrical Engineering at the same university. He is the Head of the Laboratory of Electricity Networks and Devices, and he was the Vice-Dean for Education from 2011 to 2013 and the Dean of the Faculty from 2013 to 2017. He received his bachelor's degree in 1992, his master's degree in 1995 and his doctorate in 1998 from the Faculty of Electrical Engineering at the University of Ljubljana. From 1994 to 1996, he trained at Siemens' Power

Transmission and Distribution department in Erlangen, Germany. In 2001, he taught as a guest professor at the University of Manitoba in Winnipeg, Canada. His research includes active compensators, FACTS (Flexible AC Transmission System) devices, power quality and smart grid concepts. Prof. Dr. Igor Papič has also led numerous domestic and international research and development projects. In 2009, he and his partners established Reinhausen 2e, d.o.o., a spin-off company of the University of Ljubljana. The company's two main activities include engineering and the development of passive, hybrid and active compensators. He has been invited to hold lectures at the University of Manitoba, the University of Manchester, SmartGrids Austria, TNB Research Kuala Lumpur, the University of Alberta, Sichuan University, and elsewhere around the world.

His activity extends beyond the academic sphere as well, having served as Chairman of the Slovenian Smart Grids Technology Platform from 2006 to 2017. Prof. Dr. Igor Papič is also the Vice-Chair of the Slovenian CIGRÉ-CIRED

Association, the editor of the international publication IEEE Transactions on Power Delivery, the convenor of the international working group Cigre Joint Working Group C4.42/CIRED Continuous Assessment of Low-order Harmonic Emissions from Customer Installations and the Vice-Chair of the international working group IEEE Harmonics Modelling and Simulation Task Force. (source: *University of Ljubljana*)

LUCIANO SASO | President, UNICA Network



Prof. Luciano Saso (Faculty of Pharmacy and Medicine, Sapienza University of Rome, Italy) received his PhD in Pharmaceutical Sciences from Sapienza University in 1992. He is author of more than 220 scientific articles published in peer reviewed international journals with impact factor (SASO-L in www.pubmed.com, total impact factor > 500, H-index Google Scholar 45, Scopus 37). He coordinated several research projects in the field of pharmacology and has been referee for many national and international funding agencies and international scientific journals in the last 30 years. Prof. Saso has extensive experience in international relations and he is currently Vice-Rector for European University Networks at Sapienza University of Rome. In the last 15 years, he participated in several projects including IMS2020, EGRACONS, IMOTION, BUCUM, UZDOC, TRAIN and has been speaker and chair at many international conferences organised by UNICA and other university networks. He coordinates the Sapienza team in the European University CIVIS (www.civis.eu). Prof. Saso has been Member of the Steering Committee of UNICA for two mandates (2011-2015) and in November 2019 he has been re-elected President of UNICA for the second mandate (2019-2023).

Session 1

Interdisciplinary education: challenges and opportunities

DAMIR BORAS | Rector, University of Zagreb



Professor Damir Boras is the Rector of the University of Zagreb since October 2014 (reelected in February 2018). From 2009 until 2014, he was Dean of the Faculty of Humanities and Social Sciences of the University of Zagreb. He is a leading researcher or research member in many projects related to the application and introduction of the information technology, high and elementary education, publishment and jurisdiction. He has led or participated in several professional projects for the application and introduction of IT in higher education, high school and elementary education, libraries, publishing and judiciary. In more than 140 published scientific and professional papers and scientific books and textbooks, he deals with computer processing of the Croatian language, e-education, organization and structuring of knowledge, and computer lexicography and encyclopedia. *(source: text - UNICA event in 2018 | pic: university of zagreb)*

URBAN KORDEŠ | Faculty of Education, University of Ljubljana



Urban Kordeš is professor of cognitive science and first-person research at the University of Ljubljana where he is currently heading the joint master's programme in cognitive science, Center for Cognitive Science, and Laboratory for Empirical Phenomenology. He holds a bachelor's degree in mathematical physics and doctorate in philosophy of cognitive science. His research and educational interests include in-depth empirical phenomenological research, neurophenomenology, as well as challenges of interdisciplinary and collaborative knowledge creation.

Intersectorial programmes – Boutique projects or the future of European Education?

How to design an intersectorial or interdisciplinary study programme? Despite the buzz-word status of those adjectives, and their high ranking on the lists of EU guidelines, it is rarely clearly explicated what they actually stand for and – more importantly – how to concretely approach the development of such programs.

The talk will delineate different types of interdisciplinarity and argue that marriages of the most distant disciplines and/or sectors are those most significant for the contemporary society (as well as science); good examples to underline this claim being domains of ecology and cognitive science.

Taking the Middle European Interdisciplinary Joint Master's Programme in Cognitive Science as an example, some open challenges of the existence of such programs will be illustrated (from seemingly trivial questions of classification, to more esoteric ones, like searching for the epistemological consensus). Advantages as well as drawbacks of interdisciplinary programs will be outlined, with the purpose to better understand the future European university: will it remain organized along the centuries old disciplinary bounds, or will it adapt to the needs of contemporary education and research.

AULI TOOM | Centre for University Teaching and Learning, University of Helsinki



Auli Toom, PhD, Full Professor of Higher Education, is the Director of the Centre for University Teaching and Learning at University of Helsinki, Finland. Professor Toom is also the director of the doctoral programme PsyCo (Psychology, Learning and Communication). Professor Toom is a member of the Finnish Academy of Science and Letters. She is currently the President of the Finnish Educational Research Association. Her research interests include teacher knowing, agency and teacher education as well as the scholarship of teaching and learning. She investigates learning and teaching of generic skills in the contexts of upper secondary and higher education. She leads and co-leads several research projects and supervises PhD students. She serves on editorial boards in different journals and has acted as a reviewer for many scientific journals and research programs.

Her research articles have appeared in several scientific journals and edited books.

Abstract

There exists a growing interest towards higher education students' learning of generic academic skills during higher education studies among researchers, practitioners and educational policy makers. Generic academic skills have

been perceived extremely important contributors in student learning in higher education as well as assets when they enter to the working life. Still, our understanding of student learning of generic academic skills during higher education studies is relatively scarce, and also the understandings of the pedagogical approaches and methods through which student learning of generic academic skills could be enhanced are not very clear yet. In this presentation, I show the results based on our recent research on higher education students' learning of generic academic skills as well as on pedagogical methods utilized to enhance these skills in higher education. In addition, I briefly present the recent pedagogical developments at the University of Helsinki, which have been made in order to enhance student learning. These developments include 1) learning-focused and research-based approach in education; 2) development of degree programmes and curricula; 3) development of learning environments, digital tools and pedagogical practices; and 4) research-based feedback tools, concrete pedagogical models and empirical evidence in supporting students, teachers and academic directors.

Session 2

Education and training in the scientific and technological area: ethical and legal issues

IGOR PAPIČ | Rector, University of Ljubljana

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SORIN COSTREIE | Vice-Rector, University of Bucharest



Vice-Rector for University Networks & Public Relations of the University of Bucharest and Member of the UNICA Steering Committee.

Sorin Costreie is currently Vice-Rector of the University of Bucharest and State Advisor to the Prime-Minister for Education and Research. He has been also a member of the University Senate since 2011, and he was Vice-Dean of the Faculty of Philosophy in 2016 and 2017. In 2016, he was Adviser to the Minister of Education and Research and State Secretary in the Ministry of

Education and Research. He was the head of the Quality Management Department of the University of Bucharest for 2008-2016. He is Associate Professor at the Department of Theoretical Philosophy, University of Bucharest. He holds a PhD in Philosophy at the University of Bucharest, (2007) with a thesis in the philosophy of mathematics and

has been also pursuing doctoral studies between 2000 and 2008 at University of Western Ontario, Canada in philosophy of language and analytic philosophy. His contributions (articles, books and edited volumes...) were published by Routledge, Springer, Oxford University Press, Taylor & Francis, Elsevier, Humanitas, University of Bucharest Press, .etc.

He studied with various scholarships and fellowships for extended periods of time in Canada, USA, Germany, Spain and Italy. His area of interest has lately focused on mathematical cognition, critical thinking and medical humanities. He is member of various professional associations, and currently he is member of the Steering Committee of the ESAP - European Society of Analytic Philosophy, CIVIS – European University Network and of the UNICA - Network of the Universities from the Capitals of Europe.

TOMAS DAVULIS | Dean, Faculty of Law, Vilnius University



Prof. dr. Tomas Davulis, LL.M. is the Dean of the Faculty of Law of Vilnius University (Lithuania) and professor ordinarius for Labour Law. Prof. Tomas Davulis studied law at Vilnius University where he obtained his Ph.D. degree in labour law. He also holds Master's Degree LL.M from Albert-Ludwigs University in Freiburg i.Br. (Germany). His main areas of research include European and International labour law, antidiscrimination law, social rights. In 2014-2016, Tomas Davulis was presiding over the working group for the preparation of the overall reform of labour law and social security law in Lithuania.

Tomas Davulis is also a member of the European Commission's network of experts in the fields of Labour law and anti-discrimination law. He served as a Member of Management Board of the European Fundamental Rights Agency (2009-2015), and currently he presides over the Management Board of STRATA (Lithuanian Government Centre of Strategic Analysis). He was among the initiators of the establishment of the Vilnius University Technology Hub (Techhub), which has the purpose to unite the efforts for closer interdisciplinary cooperation between different faculties, proactive partnership with businesses in the field of technology.



Professor of Commercial, International Commercial law and EU Law. Member of several international lawyer associations, arbitrator institutional and ad hoc international arbitrations, arbitrator CAS (Lausanne), former arbitrator ICSID (Washington), president of the Arbitration Triglav Insurance, member / head of several regulatory projects (Obligations Code, Law on Protection of Competition, Maritime Code, insurance contracts etc ...), former president of International Nuclear Law Association (Bruxelles), expert & consultant, visiting

professor Amsterdam, Reykjavik, Belgrade, Zagreb.

Legal dilemmas and robotization

The aim is to show and analyse the complexity of meeting law with robotisation and further, the complexity of problems deriving from it. The starting point is identification of some (not all) ethical dilemmas, enabling the possibility to step out of individual professional boxes, and moving on to a law. Robotics enters all areas of law and vice versa; there are hardly any exceptions to that. Some selected (again not all) issues: Human and Constitutional Rights, Civil Law (personal rights, law of contracts, liability (design / negligence / division and allocation / product liability ...), Antitrust (cartel of robots / price undertaking + algorithmic price-setting), Commercial Law (contractual templates, machine learning & due diligence, Fintechs, GDPR), Criminal law (i.e. can a robot commit crime, automated criminal law procedures based on algorithms), Labour law (workplace privacy, compensation, anti-discrimination protection, unionization, trade secrets / prohibition of competition clause etc.), Taxation (should robots be subject to taxation; if positive, which?), Data protection / GDPR, Insurance law, Administrative law, International Law (cyber wars). Several neuralgic points are solvable with classical legal instruments, some not. Due to the width and complexity of the problematics, we focus on only legal aspects of autonomous driving and analyze it in more detail. In the area of the collision and coexistence of law and autonomous driving, we identify in particular: regulation of infrastructure and business and liability, aspects of cloud contracts, big data & data analytics, cyber security, cooperations / collaborations / partnerships and vehicles as social networks tools.