

INTERNATIONAL PARTNER WEEK at IHK

Schedule for lectures Wednesday 6 April 2011



Name	Institution	Topic of lectures	Room nr / time	Interest area
Maija Zodzina	Dept. of Architecture and Building ,Latvia University of Agriculture, Latvia	<p>Research topics, possibilities and results of Department of Architecture and Building from Latvia University of Agriculture:</p> <p>Microclimate development possibilities in public and private city environment (relief, greenery and water element solutions, facility location).</p> <p>Research and practical projects in co-operation with architects and building engineers in energy efficient building development (green roofs, elevations).</p> <p>Ecological development of using of rain water in urban environment.</p> <p>New building materials with high energy efficiency and acoustics.</p>	E 1.01 9.00 - 11.00	C, O
Fritz Schultheiss	Dept. for Building Constructions and Architecture, HAN University of Applied Sciences, Arnhem, The Netherlands	<p>Sustainable Housing in the Netherlands:</p> <p>Aspects of the latest situation in the Netherlands. Examples of some new developed sustainable buildings and some renovations of existing buildings into sustainable buildings. Among the examples are a few much discussed buildings.</p> <p>Furthermore it is shown why the examples are sustainable.</p>	R 2 9.00 - 11.00	C, EP, O

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Robert Jankowski	Faculty of Civil and Environmental Engineering, Gdansk University of Technology, Gdansk, Poland	<p>Earthquake Engineering</p> <p>What is earthquake engineering? Causes of earthquakes. Magnitude, intensity and other parameters of a ground motion. Historical earthquakes.</p> <p>Seismic hazard maps. Types of structural damage due to ground motions.</p> <p>Dynamics of structures under earthquake excitation. Response spectrum.</p> <p>Experimental tests. Numerical methods in earthquake engineering.</p> <p>Seismic resistant design. EUROCODE 8. Geotechnical aspects in earthquake engineering.</p>	R 1 9.00 - 11.00	C, A
Andrzej Metelski	Faculty of Production Engineering and Logistics, Opole University of Technology, Opole, Poland	<p>The inverse heat conduction problems - the theory and applications:</p> <p>The lecture concerns the problems of source function identification. The constant capacity of internal heat sources, the capacity being the function of geometrical co-ordinates and the temperature-dependent heat sources are analyzed. Presented method of inverse problem solution based on the least squares criterion in which the sensitivity coefficients appear. The computations are realized using an iterative approach. The additional information necessary in order to solve the inverse problem constitutes the cooling (heating) curves at the selected set of points in the domain considered. In the part devoted to solidification process modeling (I and II generation models) the source function is identified for the different positions of sensors, among others for the sensors located in mould sub-domain. The theoretical base of inverse problems solution is discussed and some numerical examples are shown.</p>	E 1.02 9.00 – 11.00	M, O

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Ahmet Deniz Yucekaya	Industrial Engineering, Kadir Has University, Istanbul, Turkey	<p>Industrial Engineering Research Problems in Electric Power Systems</p> <p>Especially after the 90s, the electricity markets have evolved into a competitive and distributed industry in which economic fundamentals drive the price of the electricity and net cost down through increased competition. In this presentation, the problems such as bidding, unit commitment, price forecasting, asset valuation etc. and the possible research topics for industrial engineering minded people will be explained.</p>	E 1.04 9.00 – 11.00	EP, X, P
Tansal Gucluoglu	Electronics Engineering Kadir Has University, Istanbul, Turkey	<p>Challenges and New Approaches in High Speed Wireless Communications:</p> <p>Overview of Wireless Communications Multiple antenna Systems Space Time Coded Systems Cooperative Communications Antenna Selection for MIMO Systems Relay Selection for Cooperative Networks OFDM vs Channel Equalization MIMO Iterative Equalization/Decoding MIMO Iterative DFE Stack Equalization for Fading Channels</p>	E 1.05 9.00 – 11.00	ET, IT, X, O

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Wojciech Jarzyna	Electrical Drive Systems and Electrical Machines Dept. Lublin University of Technology, Poland	Quality Operation Improvement of a Wind Power Station Lecture will present selected problems in the area of operation improvement of a wind power station. The main attention will be focused on vibration limitation of a drive train. A load controller is applied into suggested solution. It acts on generator system, adapting its torque to actual value of turbine torque. Good results are giving by nonlinear controller, and between others Model Reference Adaptive System (MRAS) and LQR algorithms.	E.0.05 9.00 – 10.00	E, P, M, O
		Active Control of Composite with Embedded Piezoelectric Macro Fiber Controller During second lecture active piezoelectric systems will be described. These systems can be applied as smart composite structure embedded into a surface of blades. Presented results describes control techniques of the beam with piezoelectric Macro Fiber Composite (MFC) structure. In the control system the Adaptive Phase Position Feedback APPF algorithm has been applied to suppress vibration. The energy function that is satisfying Lyapunov stability has been chosen as an adaptive algorithm.	E 0.05 10.00 – 11.00	ET, O
Anna Chwastyk	Faculty of Production Engineering and Logistics, Opole University of Technology, Opole, Poland	Ordered fuzzy numbers (OFN) defined by W. Kosinski, P. Prokopowicz and D Slezak in 2002 make it possible to utilize the fuzzy arithmetic and to construct the Abelian group of fuzzy numbers and then an ordered ring. This new model uses the extension of the parametric representation of convex fuzzy numbers and overcomes known drawbacks of the classical approach	A 1.01 9.00 – 11.00	P, IT, ET

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Christophe Beshade	International office IUT Angers-Cholet, France	<p>Information system analysis and design method (DBMS) Intuitive tools and methods allowing not specialists to analyze flows of data in organizational professional environments. Only common sense and logical reasoning are required. The used tools were extracted and adapted from the French method MERISE. The real cases implementations are accompanied with the information allowing the evaluation:</p> <ul style="list-style-type: none"> • Project needs and business requirements • Organizational Context, project evolution, • implemented Tools, • Performed analysis, • Conclusions <p>Educational documents and exercises are proposed concerning:</p> <ul style="list-style-type: none"> • The data analysis to obtain the relational plan of the information system • The information flows analysis to obtain the organizational model for information processing. 	A 1.06 9.00 – 11.00	IT, P, X, O
Ann Marie McHugh	Business Studies, Dundalk Institute of Technology, Dundalk, Ireland	<p>Is Quality important in the 21st century? Learn what companies need to do to re-engage with the customer. Discover Total Quality Management models and Quality Standards and how they can be implemented into companies. Case study of IKEA Dublin: <i>“How sustainability builds profit”</i></p>	N 1.02 9.00 – 11.00	X, P, O

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Name	Institution	Topic of lectures	Room nr /time	Interest area
Alan Roy Crisp	Production Design, Nottingham Trent University, UK	Design for Manufacture; influences of our machining capabilities The school has over a period of five years enhanced the machining capability of the workshops with the introduction of a new generation of machine tools, including laser and water jet cutters; it is perceived these additions have influenced the style of design put forward by staff and students. This presentation through imagery of the finalised products highlights these style changes whilst celebrating the high standards achieved by staff and students.	N 1.07 9.00 – 11.00	M, O

Interest area:

C Civil engineering

ET Electronics

M Mechanical

IT IT - Computers

P Production

O Others

X Export /Business

A All

EP Electrical / Sustainable energy