Tutorial #1: **The Internet of Things and Cooperative Information Systems**

Presenter: **Munindar P. Singh**

Description:
This tutorial introduces the Internet of Things (IoT), a rapidly expanding technology area that is shaping up to bring the next revolution in information systems and computing technologies in general. This tutorial explores the key concepts of IoT and describes how ideas from cooperative information systems can support the IoT. It also describes some additional research advances needed in the relevant areas to help realize the IoT.

Short Bio:
Munindar P. Singh is a Professor in Computer Science at North Carolina State University. His research interests include multiagent systems and software engineering with a special emphasis on the engineering of systems consisting of autonomous parties. He coauthored the text Service-Oriented Computing in 2005. Munindar is an IEEE Fellow, the current Editorin- Chief of ACM Transactions on Internet Technology, and a former Editor-in-Chief of IEEE Internet Computing. His current editorial service includes IEEE Internet Computing, IEEE Transactions on Services Computing, Autonomous Agents and Multiagent Systems, and the ACM Transactions on Intelligent Systems and Technology. His prior editorial service includes Journal of Artificial Intelligence Research and Journal of Web Semantics. Munindar was general cochair of AAMAS 2005 and program cochair of CoopIS 1997, ICWS 2008, and several other events. He was a member of the founding IFAAMAS Board of Directors. Munindar has given 20 conference tutorials, including at AAMAS (2002, 2003, 2004), CoopIS (1994), COMAD (1994), ECAI (1996), ICDCS (1995), ICDE (1996), ICMAS (1998) ICSOC (2010), IJCAI (1995, 1997 (two), 1999, 2007), OOPSLA (2004), andWWW (2002, 2004: two each year).
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Amit K. Chopra is a Lecturer in Software Engineering at Lancaster University in the UK. His research interests include the software engineering and multiagent systems, with a special emphasis on the modeling of interactions and social expectations. Amit's research has appeared in prestigious venues such as IEEE Transactions on Software Engineering, ACM Transactions on Software Engineering and Methodologies, IEEE Computer, AAMAS, and AAAI. Prior to joining Lancaster University, Amit was a Marie Curie Trentino Cofund Fellow at the University of Trento in Italy. Amit is on the editorial board of the ACM Transactions on Internet Technology.
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Tutorial #2: **Meta-modeling: concepts, tools and applications**

Presenter: **Saïd Assar**

Description:

Models are essential artifacts in software engineering; they provide a compact, easy to understand, and mostly graphical description of a domain or system of interest. The construction of these models must adhere to a permitted structure that itself can be specified as a model— a meta-model. Nowadays, meta-modeling plays a growing role in Information Systems Engineering and is becoming a universal technique to define generic information structures, reference models, and modeling languages. However, for researchers and practitioners engaged in a meta-modeling activity, certain conceptual and operational issues remain vague and the full potential of meta-models not thoroughly understood. The goal of this tutorial is to give attendees a clear picture of the latest research in meta-modeling, to illustrate the variety of application domains and to demonstrate possibilities offered by available meta-CASE technologies along with their limits. Attendees will acquire the knowledge needed to properly envision the role of meta-models in information systems life-cycle and, accordingly, to select the adequate meta-modeling technical infrastructure.

Short Bio:

Saïd Assar holds MSc and PhD degrees in Computer Science from Pierre & Marie Curie University, Paris, France. He is an Associate Professor of Information Systems at Institut Mines-Telecom, Ecole de Management, and is associate researcher at CRI Research Lab, Sorbonne University, Paris. In 2012, he was a visiting scholar at Lund University, Sweden, with the Software Engineering Research Group (SERG). His research interests include IS modeling, method and tools for IS development, empirical software engineering, e-learning and e-government applications. His work has been published in various national and international workshops and conferences, e.g., INFORSID, COMPSAC, ICSOFT and RCIS. He has co-edited three books and took part in organizing many international scientific events, e.g., IFIP WG8.1 EISIC'02, AIM'04, RE'05, pre-ICIS'06, ICIS'08 and RCIS'13. Saïd Assar serves regularly on program committees for national and international workshops and conferences, e.g., IADIS, AIM, INFORSID, RCIS, ECIS, ESEM, and track co-chair at ECIS'13 and ECIS'15. He is on the Editorial Board for Information Technology for Development Journal and Int. Journal of Social and Organizational Dynamics in IT.

More information with complete list of publications is available at http://www-public.it-sudparis.eu/~assar/

Tutorial #3: **Specifying Requirements through Interaction Design**

Presenter: **Hermann Kaindl**

Description:

When the requirements and the interaction design of a system are separated, they will most likely not fit together, and the resulting system will be less than optimal. Even if all the real needs are covered in the requirements and also implemented, errors may be induced by human‑computer interaction through a bad interaction design and its resulting user interface. Such a system may even not be used at all. Alternatively, a great user interface of a system with features that are not required will not be very useful as well. This tutorial explains joint modeling of (communicative) interaction design and requirements, through discourse models and ontologies. While these models were originally devised for capturing interaction design, it turned out that they can be also viewed as precisely and comprehensively specifying classes of scenarios, i.e., use cases. In this sense, they can also be utilized for specifying requirements. User interfaces for these software systems can be generated semi‑automatically from our discourse models, domain‑of‑discourse models and specifications of the requirements. This is especially useful when user interfaces tailored for different devices are needed. So, interaction design facilitates requirements engineering to make applications both more useful and usable.

Short Bio:

Professor **Hermann Kaindl** is the director of the Institute of Computer Technology and a member of the senate at the Vienna University of Technology. He joined this institute in early 2003 as a full professor. Prior to moving to academia, he was a senior consultant with the division of program and systems engineering at Siemens AG Austria. There he has gained more than 24 years of industrial experience in software development and human‑computer interaction. He has published five books and more than 170 papers in refereed journals, books and conference proceedings. He is a Senior Member of the IEEE, a Distinguished Scientist member of the ACM, a member of the AAAI, and is on the executive board of the Austrian Society for Artificial Intelligence. He previously gave more than 50 tutorials, e.g., at CAiSE'00, RE'01, RE'02, RE'03, CADUI‑IUI'04, RE'04, INCOSE'05, AAAI'06, OOPSLA'06, IFIP Interact'07, OOPSLA'07, RE'08, IFIP Interact'09, ACM EICS'10, AAAI'11, RE'11, ACM CHI'12, BCS HCI'12, ACM SAC'13, IEEE APSEC'13, HICSS'14, ACM SAC'14 and HICSS'15.

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Tutorial #4: **Modeling and Analysis of OSS Ecosystems**

Presenter: **Xavier Franch**

Description:
Understanding the complex social and organizational context of software systems and organizations is critical to the success of emerging IT technologies. This tutorial focuses on the modeling and analysis of Business and Software ecosystems for the purpose of performing analysis related to their structure in terms of relationships between the different ecosystem components. Beyond a general overview of the topic, the tutorial will take Open Source Software ecosystems as domain, and on one particular activity, namely risk analysis and management, as running example to make the concepts concrete. OSS adoption strategies will be introduced as a way to conduct modeling and analysis. The linkages between ecosystems at the business level and at the technological level will be particularly emphasized.

Short Bio:
Xavier Franch is Associate Professor at UPC, Spain. His research interests are in the areas of requirements engineering, information systems, open-source software, software architecture, and service engineering. He has published >150 refereed papers in journals and international conferences like RCIS, IEEE Software, IEEE TSC, IST, JSS, SPE, CSI, SoSyM, SQJ, IJSEKE, RE, CAiSE, ER, SAC, COMPSAC, ICSR, EASE, ECSA, SEKE, ICCBSS. He won best paper awards in RCIS, ICCBSS and ESELAW. He belongs to the Editorial Board of Elsevier IST, IET Software and IJISMD and to the Steering Committee of RE, CAiSE, REFSQ, CIbSE and the iStar and TwinPeaks workshops. He has played different roles in conferences like RCIS (Doctoral Symposium Co-chair), RE (General Chair, Workshop Co-chair, Publicity Co-chair), FSE (Tutorial Co-chair), ESEM (Doctoral Symposium Co-chair), CAiSE (Program Co-chair, Workshop Co-chair), REFSQ (Program Co-chair, Doctoral Symposium Co-chair), ICCBSS (Program Co-chair, Proceedings Cochair), and belonged to more than 150 program boards and committees in conferences like RCIS, RE, ICSE-NIER, REFSQ, CAiSE, ER, SAC, CBSE, SPLC. He acts as regular reviewer for SCI-indexed journals like TSE, TOSEM, IEEE Software, Computer, REJ, EMSE, IEE Proceedings, FGCS, etc. (up to >20) and edited special issues in ISJ, REJ and IST. He has co-organized several workshops usually organized as satellite events of main conferences in the field as iStar, CMM, CESI, TwinPeaks, RECOTS, MPEC, SOCCER and APLE. He has been keynote speaker at RCIS and MoDRE@RE and taught: tutorials at RCIS, ICSE, RE, CAiSE and CIbSE; seminars at the universities of City London, Wien, Ottawa, Linz, Sevilla, Valencia, NTNU, FBK, Wollongong, Toronto, Groningen, UFES; invited talks at RE, IFIP WG 2.9 and Dagstuhl. He is coordinator of the FP7 STREP project RISCOSS and scientific manager of the H2020 project SUPERSEDE (starting May 2015).
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Angelo Susi is a research scientist in the Software Engineering group at Fondazione Bruno Kessler in Trento, Italy. His research interests are in the areas of requirements engineering, goal-oriented software engineering, formal methods for requirements validation, and search based software engineering. He published more than 80 refereed papers in journals and international conferences such as IST, SoSyM, TOSEM, ER, FSE, ICSE, RE. He participated in the organization committee of several conferences, such as SSBSE '12 (General Chair), RE'11 (Local and Financial chair) and in program committees of international conferences and workshops (such as AAMAS, ICSOC and SSBSE). He also served as reviewer for several Journals such as REJ, IST, JSS. He is the scientific manager of the EU FP7 project RISCOSS. *Software Engineering Unit, Fondazione Bruno Kessler, Povo, Italy*
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Eric S. K. Yu is Professor at the University of Toronto, Canada.
His research interests are in the areas of information systems modeling and design, requirements engineering, knowledge management, and software engineering. Books he has co-authored or co-edited include: Social Modeling for Requirements Engineering (MIT Press, 2011); Conceptual Modeling: Foundations and Applications (Springer, 2009); and Non-Functional Requirements in Software Engineering (Springer, 2000). He is an associate editor for the Int. Journal of Information Systems Modeling and Design, and serves on the editorial boards of the Int. J. of Agent Oriented Software Engineering, IET Software, and the Journal of Data Semantics. He is co-editor for the MIT Press book series on Information Systems. He was Program Co-chair for the 27th and 33rd Int. Conference on Conceptual Modeling (ER'08, ER'14). *Faculty of Information, University of Toronto, Toronto, Canada* Web page: http://yu.ischool.utoronto.ca