

NATIONAL UNIVERSITY OF SINGAPORE

School of Computing

I S S E M I N A R

Title: **Process Query Language**

Speaker: Dr. Artem Polyvyanyy, Lecturer, Queensland University of Technology,
Australia

Date/Time: 3 June 2016, Friday, 10:30 AM to 12:00 PM

Venue: Executive Classroom, COM2-04-02

Chaired by: Dr Hahn Jungpil, Associate Professor, School of Computing
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ABSTRACT:

Process Query Language

Process models capture the behavior of dynamic systems in an unambiguous way by describing (often infinite) collections of process instances, where a process instance is an arrangement of activities and/or events in relation to each other according to an order in which they can be executed by a system. Process Querying addresses the problem of automatically managing (collections of) process models based on process instances that these models describe. A user interacts with a collection of process models via process querying intents. A process querying intent is a formally specified request to manage a collection of process models for a particular purpose. Process Querying research initiative spans a range of topics from theoretical studies of algorithms and the limits of computability of process querying techniques to the practical issues of implementing process querying technologies in software. In this talk, Dr. Artem Polyvyanyy will report on his recent research activities in Process Querying. Specifically, this presentation will focus on a proposal for a design of a formal language for specifying process querying intents, label management techniques that aim at improving usefulness of process querying, results of an empirical study that aims at evaluation of the process querying ideas, works that aim at improving the expressive power of process querying techniques, and feasibility of process querying.

BIODATA:

Dr. Artem Polyvyanyy is a Lecturer at the Business Process Management Discipline, Information Systems School, Science and Engineering Faculty, of the Queensland University of Technology, Brisbane, Australia. He has a strong background in Computer Science, Software Engineering, and Business Process Management from the National University of Kyiv-Mohyla Academy, Kyiv, Ukraine, and the Hasso Plattner Institute,

Potsdam, Germany. In March 2012, he received a Ph.D. degree (Dr. rer. nat.) in the scientific discipline of Practical Computer Science from the University of Potsdam, Germany. Artem's industry experience includes internships at Wincor-Nixdorf GmbH in Hamburg, Germany, and SAP Labs in Palo Alto, CA, USA. His research and teaching interests include Distributed and Parallel Systems, Automata Theory, Formal Methods, Information Systems, Software Engineering, and Workflow Management. He has published more than 40 scientific works on these topics in academic book chapters, journal articles, and conference papers. More recently, he has conducted research on the fundamentals of process analysis, the foundations of behavior abstraction in concurrent systems, and querying of process model repositories.