

## Department of Systems Engineering and Engineering Management

### Seminar Series

## Knowledge Representation and Software Engineering

**Dr. Jeff Z. Pan**

Reader

Computing Science

University of Aberdeen, United Kingdom

Date	27 June 2018 (Wednesday)
Time	10:30am - 11:30am
Venue	P7510, 7/F, Yeung Kin Man Academic Building

### Abstract

Knowledge Graph has become popular in knowledge representation and knowledge management applications widely across search engine, biomedical, media and industrial domains in recent years. Can they make further impacts in software engineering in general? After a brief introduction of knowledge graph, I will present a few case studies and observations on how modern knowledge representation techniques can be applied in software engineering, including some of those on requirement engineering, business process refinement and web application development. Last but not least, if time allows, I will finalise the talk by presenting some advanced approximate knowledge graph reasoning techniques that are based on ideas from software engineering.

### About the Speaker

**Dr Jeff Z. Pan** is Reader of Computing Science at University of Aberdeen. He received his Ph.D. in Computer Science from The University of Manchester in 2004. He is the Director of the Aberdeen-Wuhan Joint Research Lab on Knowledge Engineering and Information Security. His research focuses primarily on knowledge representation, artificial intelligence and data science, in particular on knowledge graph based learning and reasoning, as well as their applications, such as those in healthcare and security. He was a co-chair of the

Software Engineering Task Force at the Semantic Web Best Practice and Deployment Working Group at W3C. He is a key contributor of the W3C OWL (Web Ontology Language) standard. He leads the development of the award-winning TrOWL reasoner, the only ontology reasoner that Oracle Spatial and Graph (from v12) uses via the OWL-DBC database connection. He is an internationally leading expert on Knowledge Graph, being the Chief Editor of the first two books on Knowledge Graph, a new technology that is widely used by world leading IT companies. As the Chief Scientist and Coordinator of the EU Marie-Curie K-Drive project, he coordinated 22 Marie Curie Fellows on Knowledge Graph and Ontology research. He is an Associate Editor of the Journal of Web Semantics (JWS) and of the International Journal on Semantic Web and Information Systems (IJSWIS). He actively teams up with industrial collaborators on innovative research.

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Enquiry: 3442 8408

***All are Welcome!***