上海交通大学自动化系
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Key Laboratory of System Control and Information Processing, Ministry of Education

学术报告会

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Formal Methods for Requirements Engineering for Large Cyber-Physical Systems

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Abstract:
How can we be sure that the computer systems that control our elevators, medical devices, automobiles and aeroplanes actually satisfy all the requirements we specify for them? It is often easy to manually trace how requirements are implemented for simple systems such as coffee machines. However, the majority of real-world systems are far more complex and during their development, they often demand that we manage huge numbers of requirements. Our research over the last few years has focussed on requirements engineering and early architectural design and analysis of large Cyber-Physical systems. Most of this work has been in the context of IEC 61499 Function Blocks. During this seminar, I would like to present our research and gain insights via feedback from attending scholars.

Biography:
Roopak Sinha, PhD, MCE, BE(Hons), is a Senior Lecturer in the School of Computer and Mathematical Sciences at Auckland University of Technology, New Zealand. His primary research interest is "Next-generation Formal Frameworks for Designing Large-scale Embedded Software" with application in Industrial Automation Systems, IoT, and Intelligent Transportation Systems. He has previously worked at INRIA, Grenoble and The University of Auckland.