



Manish Parashar, Ph.D.
AAAS Fellow, IEEE Fellow, ACM Distinguished Scientist
The State University of New Jersey University, NJ, USA

Title: Computing in the Continuum: Harnessing a Pervasive Data Ecosystem

Abstract: The exponential growth of digital data sources enabled by the IoT, coupled with the ubiquity of non-trivial computational power, at the edges, in the core and in-between, for processing this data have the potential for fundamentally transforming our ability to understand and manage our lives and our environment. However, despite tremendous advances in technology this vision remains largely unrealized -- while our capacity for generating data is expanding dramatically, our ability for managing, manipulating and analyzing this data, for transforming it into knowledge and understanding in a timely manner, and for integrating it with practice has not kept pace. In this talk I will explore computing in the continuum – a paradigm that opportunistically leverages loosely connected resources and services to process data in-situ and in-transit, to extract timely insights that are actionable. Using examples from our work as part of the CometCloud project, I will present research challenges and some initial solutions towards realizing this paradigm.

Bio: Manish Parashar is Distinguished Professor of Computer Science at Rutgers University. He is also the founding Director of the Rutgers Discovery Informatics Institute (RDI2). His research interests are in the broad areas of Parallel and Distributed Computing and Computational and Data-Enabled Science and Engineering. Manish is founding chair of the IEEE Technical Consortium on High Performance Computing (TCHPC), Editor-in-Chief (elect) of the IEEE Transactions on Parallel and Distributed Systems, and serves on the editorial boards and organizing committees of a large number of journals and international conferences and workshops. He has over 350 publications and has deployed several software systems that are widely used. He has received a number of awards for his research and leadership. Manish is Fellow of AAAS, Fellow of IEEE/IEEE Computer Society and ACM Distinguished Scientist. For more information please visit <http://parashar.rutgers.edu/>.