purpose computing. In 1997, he changed the name of the Computer Graphics Center to the Center for Earth Observation (CEO) with the same mission. In 1986 and 87, he served as a NASA-ASEE Fellow at NASA Ames Research Center and as a summer faculty at Stanford University, California.

Since 1988, he has served as a faculty member at the International Space University (ISU). Dr. Khorram has worked with over 250 educators and world-renowned experts from 630 countries and has participated in educating over 2,000 multidisciplinary graduate students from 67 countries worldwide.

In 1995 and 96, he served as the first Dean and Vice President for Academic Programs at ISU in Strasbourg, France. In this capacity, he was responsible for the development and delivery of all academic programs and supervision of the faculty, the academic staff, and Program Directors. In this capacity, he played a major role in establishing academic relationships between ISU and major space organizations such as European, French, Japanese, Russian, German, and Austrian, and Indian Space Agencies. Subsequent to his position as the Dean, Dr. Khorram served as the Principal Advisor to the President in 96 and as the Chair of the Academic Council and Chair of the ISU’s 23 Affiliates Campuses Network worldwide. He currently serves as a the University’s Board of Trustees.

He holds two patents in Data Fusion techniques as applied to imagery from various payloads and platforms. He has served as the Major Professor for over 30 Ph.D. and MS students. He is the author of over 200 publications in peer-reviewed journals, conference proceedings, and major technical reports. He is a member of several professional and scientific societies.

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**Distributed Pattern Matching: Concept and Applications in Internet-scale networks.**

Peer-to-peer technology has impacted a wide range of distributed systems beyond simple file-sharing. Distributed XML databases, Distributed computing, server-less web publishing and networked resource/service sharing are only a few to name. Despite the diversity in applications,
these systems share a common problem regarding searching and discovery of information.

This commonality stems from transitory peer population and volatile peer content. As an effect users do not have the exact information about what they are looking for. Rather queries are based on partial information, which requires the search mechanism to be flexible. On the other hand to scale with network size the search mechanism is also required to be bandwidth efficient.

Since the advent of P2P technology experts from industry and academia have proposed a number of search techniques - none of which is able to provide satisfactory solution to the conflicting requirements of search efficiency and flexibility. Structured search techniques, mostly DHT- based, are bandwidth efficient while semi(un)- structured techniques are flexible. But, neither achieves both ends.

This talk will introduce a generic framework called Distributed Pattern Matching to address the search problem in distributed environments while achieving both search flexibility and efficiency.

Bio:

Raouf Boutaba is currently a Professor of Computer Science at the University of Waterloo and a David R. Cheriton faculty fellow. Before that he was the Director of the Telecommunications and Distributed Systems Division of the Computer Science Research Institute of Montreal. He held Visiting Professor Positions at the University of Toronto (Canada), the University of Pierre et Marie Curie (France), the University of Versailles (France), POSTECH (Korea), and ENST-Paris (France). He is currently a distinguished speaker of the IEEE Communications Society and served in the past as a distinguished speaker of the IEEE Computer Society. He is the Chairman of the IEEE Communications Society Technical Committee on Information Infrastructure and the IEEE Communications Society Technical Sub-Committee on Autonomic Communications, and the Director of the Conference Publications Board of the IEEE Communications Society. He is a past Chair of the IFIP Working Group on Networks and Distributed Systems, Past Director of the Related Societies board, and Past Director of the standards board of the IEEE Communications Society. He is the founder and Editor in Chief of the IEEE Transactions on Network and Service Management, on the advisory editorial board of the Journal of Network and Systems Management, and on the editorial board of other journals including the KIKS/IEEE Journal of Communications and Networks, the Elsevier Journal of Computer Networks and others. He acted as the general or program chair for several conferences including NOMS, MANWEEK, NETWORKING, and ICC/GLOBECOM Symposia. His research interests include network, resource and service management in wired and wireless networks. He has published more than 250 papers in refereed journals and conference proceedings and received several journal and conference Best Paper awards such as the 2008 Fred W. Ellersick Prize Paper Award As well as other recognitions such as the Premier's Research Excellence Award, two NORTEL research excellence Awards, a fellowship of the Faculty of Mathematics at the University of Waterloo, and the IEEE Communications Society Hal Sobol Award.