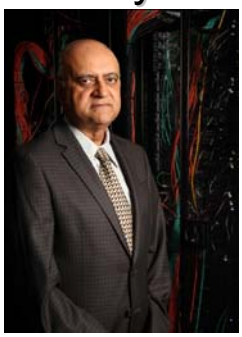
Centre of Excellence for Cyber Systems and Information Assurance, IIT Delhi

Talk on

Attribute–Based Access Control Models and Beyond

by



Prof. Ravi Sandhu
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Abstract:
This talk will provide a perspective on attribute-based access control (ABAC). The ongoing authorization leap from rights to attributes offers numerous compelling benefits. Decisions about user, subject, object and context attributes can be made relatively independently and with suitable decentralization appropriate for each attribute. Policies can be formulated by security architects to translate from attributes to rights. Dynamic elements can be built into these policies so the outcomes of access control decisions automatically adapt to changing local and global circumstances. On the benefits side this leap is a maturation of authorization matching the needs of emerging cyber technologies and systems. On the risks side devolving attribute management may lead to attributes of questionable provenance and value, with attendant possibility of new channels for social engineering and malware attacks.

Bio:
Ravi Sandhu is Executive Director of the Institute for Cyber Security at the University of Texas at San Antonio, where he holds the Lutcher Brown Endowed Chair in Cyber Security. Previously he was on the faculty at George Mason University (1989-2007) and Ohio State University (1982-1989). He holds BTech and MTech degrees from IIT Bombay and Delhi, and MS and PhD degrees from Rutgers University. He is a Fellow of IEEE, ACM and AAAS, and has received awards from IEEE, ACM, NSA and NIST. He was Chairman of ACM SIGSAC, and founded the ACM Conference on Computer and Communications Security, the ACM Symposium on Access Control Models and Technologies and the ACM Conference on Data and Application Security and Privacy. At the Institute for Cyber Security he leads multiple teams conducting research on many aspects of cyber security including secure information sharing, social computing security, cloud computing security, secure data provenance and botnet analysis and detection, in collaboration with researchers all across the world.

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