

Dr. Dhiren R. Patel

Professor of Computer Engineering, NIT Surat, India

(Adjunct Professor – CSE, IIT Gandhinagar, Ahmedabad, India – Since July 2011)

(Visiting Professor – CSE, IIT Gandhinagar, Ahmedabad, India – Full time during July 2009 to Jan 2011)

(Visiting Scientist – Cyber Security Research Group, City University London – Since Sept 2009)

(Member – Systems Research Group, IIM Ahmedabad, India – Since May 2009)

(Research Advisor – CNIP-SCADA and Biometrics Projects, C-DAC Mumbai, India – Since 2008)

My **research** interests include

Information Security, Advanced Computer Architectures, Affordable and Green IT

Currently we are investigating solution directives for the following problems:

- A. Cloud Security Framework
 - At Network level – NIDS/IPS for Cloud
 - At VM/Hypervisor level – VM vulnerabilities, Integrity of VM image
 - At User level – privacy, access control and trust issues
 - Cloud Data Security - Exploring homomorphic encryption (FHE), Attribute based encryption (ABE), Identity Based Cryptography (HIBC)
- B. Critical Infrastructure Protection
 - SCADA security - Risk analysis, Removing intrinsic weakness of the protocols: By Incorporating confidentiality, integrity, authentication, Effective key management, Performance and cost issues
- C. Large Scale Identity Management Systems (e.g. UID of India)
 - Performance Management (PM) framework - preventing, detecting and recovering from performance degradation threats which could be caused by the technology, users, administrative processes or operational environment
 - Mapping Virtual Identities to Real entities – Threat alert system, Differential privacy

Currently I **teach** the following courses

- 1. Information Security (at B Tech and M Tech level) – Fall
- 2. Network and Systems Security (at B Tech level) - Spring
- 3. PKI and Trust Management (at M Tech level) – Spring

I **graduated** from

REC Surat, India - B Tech – Electronics and Ph D – Computer Engineering

IIT Kanpur, India - M Tech – Computer Science & Engineering,

I am member of the following **Professional bodies**

- 1. Cryptology Research Society of India (Life Member)
- 2. Computer Society of India (Life Member)
- 3. ACM (Member)
- 4. IEEE (Member)
- 5. Indian Society of Technical Education (Life Member)

I am involved in **coordination** of the following workshops and conferences (partial list)

1. General co-Chair – 6th IFIP WG11.11 conference on Trust Management – 21-25 May 2012, India
2. Coordinator – IFIP/ISEAP International Winter School on Trust Management in ICT – 6-10 Feb 2012, NIT Surat, India
3. Chair – Ph D Colloquium at CSI-2011, Dec 2011, Ahemdabad, India
4. Tutorial Chair – Int'l conference on Secure Identity Mgt – SecureCom 2011 - London – Sept 2011
5. Program co-Chair - International Workshop on Large Scale Biometric Identity Management System - Mumbai - Jan 2011
6. Program co-Chair - Indo-UK Workshop on Critical National Infrastructure Protection (CNIP 2010), Mumbai - May 2010.
7. Coordinator - STTP on Cyber Security, NIT Surat – January 2009
8. Program Committee member – Hack.In (3rd Hackers' Workshop) – IIT Kanpur - 2008
9. Program Committee member – UBICOMM 2009 -Malta – 2009
10. Coordinator - Workshop on Biometrics & Authentication - CDAC Mumbai - 2008

I have delivered following invited **talks abroad** (partial list)

1. *Ethical Hacking and Trustworthy Computing* - Hewlett Packard Labs, Palo Alto, USA - Oct. 2006
2. *Fighting Anti-Honeypot Technology* - Kuala Lumpur, Malaysia – June 2008
3. *Dynamic and Ubiquitous Security Architecture for Global SOA* -Valencia, Spain – Sept 2008
4. *Doctoral Research – Problems and Initiatives in Information and Sensor Networks* – Telecom Paris Tech School at University Nord 13, Paris, France – Oct 2008
5. *Cryptology: Moving Forward; Primitives for Secure System* – City University London – Sept 2009
6. *Security Research Challenges* – University of Plymouth/RHUL/BT Ipswich UK – Sept 2009
7. *Classical Cryptography to Modern Information Security Techniques* – CMU Qatar – Oct 2009
8. *Security Challenges to Cloud Computing* -- City University London, Jan 2010
9. *Cloud Computing* -- Bahrain Internet Society, Bahrain - Apr 2010
10. *Remote Infrastructure Management* - TeleLogix - Dubai – Oct 2010
11. *Building Trust in Cloud* – City University London – Dec 2010
12. *Security and Scope of Trust Management* - City University London / DTU Copenhagen – June 2011

I have written a **book**

Information Security: Theory and Practice, PHI, ISBN-978-81-203-3351-2, 2008

(Reprinted in 2010)

Recent publications (partial list <pl. refer web link>)