



दूरसंचार विभाग
DEPARTMENT OF
TELECOMMUNICATIONS



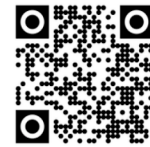
राष्ट्रीय संचार सुरक्षा केंद्र
**National Centre for
Communication Security**

International Conference on "5G Network Security"



Date : 09 & 10 August 2023
Time : 09:30 AM - 17:30 PM IST
Mode: Hybrid

Registration Details



**Venue: BMS College of Engineering, Bull temple road,
Bengaluru 560019, Karnataka, India**
(Online Participation Through Cisco Webex & Youtube Webcast)

Inaugural Session

Inaugural Address



Sri. K. Rajaraman IAS, Secretary (T), Department of Telecommunications, Ministry of Communications, Govt. of India. He was previously working as additional secretary in the Department of Economic Affairs (DEA). He has worked towards fostering economic relations worldwide particularly G20 and BRICS countries.

Special Address



Sri. Uma Shankar Pandey joined ITS in July 1986 and worked in different disciplines and areas. On promotion to Sr. DDG level, he got posted as Head Madhya Pradesh LSA for approximately one-and-a-half year and from February 2023 working as Member (Services), DoT.

Agenda Day-1 Date: 09.08.2023

Time (IST)	Topic	Speaker
09:30 - 10:00	Registration	
10:00 - 10:45	Inaugural address by Secretary (T) & key noted address by other dignitaries	Sri. K. Rajaraman IAS, Secretary (Telecom) & Chairman DCC, DoT GoI
10:45-11:00	Tea Break	
11:00 - 11:45	Evolution of Security challenges in public telecom networks	Sri. Narendra Nath, JS NSCS
11:45 - 12:30	Risks associated with the use of Open Source Software components in Telecom	Sri. Aneesh Kumar K B, CDAC
12:30 - 13:15	Exposure to ComSec Scheme	Sri. P K Singh, DDG (SA), DOT
13:15 - 14:15	Lunch Break	
14:15 - 15:00	Implementation of 5G networks in India	Sri. Hardik Bavishi, RJio Sri. Yashesh Buch, RJio
15:00 - 15:45	Vulnerabilities in 5G core and Mitigation approach	Prof. Manjesh Hanawal, IITB
15:45 - 16:00	Tea Break	
16:00 - 16:45	Cryptography for security of 5G with focus on FIPS 140-3 and its adoption	Ms. Lily Chen, Leader of Cryptographic Technology Group, NIST Dr. Timothy A Hall, Group Leader, Security Testing, Validation, and Measurement Manager, NIST
16:45 - 17:30	Weakness brought in by IoTs / CIoT	Sri. Aurindam Bhattacharya, Group Leader, C-DOT

Agenda Day -2 Date: 10.08.2023

Time (IST)	Topic	Speaker
09:30 - 10:15	Deployment of 5G in cloud-technological options & Management and orchestration (MANO)	Sri. Ganesh Srinivasan, Microsoft
10:15 - 11:00	Challenges of 5G - Multi Edge computing	Sri. Saro Velrajan, Principal Consultant, Ginkos India
11:00 - 11:15	Tea Break	
11:15 - 12:00	Security Challenges of COTS and possible solutions	Prof. Chester Rebeiro, IITM
12:00 - 12:30	Implementation of 5G RAN in India	Sri. Sanjeev Dhallam, Head, Network Security, Airtel
12:30 - 13:15	Architecture and challenges in Open RAN (includes RIC)	Dr. Mukesh Taneja, VP, Mavanir
13:15 - 14:15	Lunch Break	
14:15 - 15:00	Experience on 5G security assessments in Korea	Mr. Heung Youl Youm, Chairman of ITU-T SG17 & Chairman of Korea 5G security council Ms. Zoe Sungchae Park, Manager, Senior Researcher, Cybersecurity Emerging Standards Center
15:00 - 15:30	Challenges posted in adopting cloud technologies for telecom networks and Mitigation approaches	Sri. Sankar Srinivasan, SP Architect of Asia Sri. Atul Deshpande, Cisco Sri. Ravi Guntupalli, Cisco
15:30 - 15:45	Tea Break	
15:45 - 16:15	Security issues in RAN and possible solutions	Sri. Jagdeep Walia, Ericsson
16:15 - 17:00	Service Exposure Challenges in APIs	Sri Niranth Amogh, Nokia
17:00 - 17:15	Closing remarks by Member (S)	Sri U.S. Pandey ITS, Member (Service), DCC, DoT GoI
17:15 -	Vote of thanks	

Speakers



Sri. Narendra Nath Gangavarapu, an officer of the Indian Telecommunication Service, is working as Joint Secretary, National Security Council Secretariat with responsibilities for coordination in matters of cyber security activities by different entities of India in the government, public and private sectors. He has over 30 years of telecom (including 20 years of senior management) experience in the areas of Telecom Security, Network planning, installation, operation and maintenance. He was associated with Telecommunications Standards Development Society of India (TSDSI) as member of the GC.

Sri. Aneesh Kumar K B is currently working as Joint Director in the Cyber Security Division of CDAC Thiruvananthapuram. He has more than 18 years of experience in the networking and cyber security domain. He is currently working on multiple research projects on Software Defined Networking (SDN), Network Service Orchestration and Automation and Metro Area Quantum Access Network, which is the first Software Defined Quantum Key Distribution Network (QKDN) in India.



Sri. Pusphendra Kumar Singh is an Indian Telecom Service officer of 1989 batch. He has been heading the security assurance vertical in Department of Telecommunication since 2020. He has a vast experience in laying down the technical specifications for various telecom products/network elements, testing and evaluating them against laid down specifications and international standards. He has many years of experience in the regulation and enforcement of the telecom sector while working in Department of Communications field at Delhi, Lucknow, Meerut. He has very good experience in telecommunication security while working in Ministry of Communication at Delhi.



Sri. Hardik Bavishi is currently leading the Solutions Architect team for Jio 5GCN products providing design solutions to internal development teams, Jio network teams and external customers and having industry experience more than 20 years. He has diverse experience in mobility packet core, including product design and development, quality assurance, network planning, and solution design.



Sri. Yashesh Buch is currently leading the Standardization and Quality Assurance team for 5G Radio Access Network. He has diverse experience in Cellular RAN, including product design and development, quality assurance, network planning, and solution design and having industry experience more than 20 years.



Prof. Manjesh Hanwal received the BTech degree in ECE from NIT, the M.S. degree in ECE from the Indian Institute of Science, Bangalore, and the Ph.D. degree from INRIA, Sophia Antipolis and University of Avignon, France, in 2013. After two years of postdoc at Boston University, he joined Industrial Engineering and Operations Research at the Indian Institute of Technology Bombay, Mumbai, India, where he is an associate professor now. His research interests include communication networks, machine learning, cybersecurity, and 5G security.



Speakers



Dr. Lily (Lidong) Chen is a mathematician and heads Cryptographic Technology Group in Computer Security Division, NIST. Her team has been developing cryptographic standards published in Federal Information Processing Standards (FIPS) and NIST Special Publications (SP). The team is currently devoted to developing next generation of cryptography standards, including post-quantum cryptography, lightweight cryptography for constrained environment, and approaches many advanced cryptographic areas.

Dr. Timothy A. (Tim) Hall is an electrical engineer by training. He is the manager of the Security Testing, Validation and Measurements Group in the Computer Security Division at NIST. His group includes the FIPS 140 Cryptographic Module Validation Program (CMVP), the Cryptographic Algorithm Validation Program (CAVP), the National Vulnerability Database (NVD) and a few security research activities. He has published research in spectrum sharing and dynamic spectrum access in his past roles at NIST.



Sri. Aurindam Bhattacharya, an Electronics and Communication Engineer having more than 35 years of industry experience in various domains starting with testing and deployment of Mainframe computers; design, testing and deployment of Strategic Communication Systems for the Defence Sector. He has been a key contributor to various policy and roadmap documents of DoT on M2M Communication and IPv6. etc. Also contributed in various Technical Reports in TEC, as convener for published standard IS:18004-1 in BIS and in formulation of the policy document for the standardization of Intelligent Transportation System in Niti Aayog.

Sri. Ganesh Srinivasan is a Partner Software Engineering Manager in the Azure for Operators organization at Microsoft. He is part of the leadership team responsible for engineering, strategy, and partnerships to bring the power of Azure cloud to the telecommunications industry. He was one of the early members of the Microsoft Azure Networking team and was responsible for the development and release of services such as Virtual Networks, VPN, ExpressRoute and the Edge Zones product suite. He has served in several engineering and product management roles in Windows and Azure over the last 15 years. He earned his MS and PhD in Electrical Engineering from Syracuse University, NY.



Sri. Saravanan (Saro) Velrajan currently works as the Principal Consultant at Ginkos India. He has over 25 years of experience in networking technologies and he is MBA in Technology Management from University of Phoenix. Saro has worked in both USA and in India, for startups and established companies, driving multiple digital transformation initiatives. He is the author of the book “An Introduction to 5G Wireless Networks”. He is a much sought out professional speaker and trainer. He is currently pursuing his Ph.D. in Edge Computing.

Prof. Chester Rebeiro is an Associate Professor at the Indian Institute of Technology, Madras. Prior to this he was a postdoctoral researcher at Columbia University. He has a Ph.D. from IIT Kharagpur in the area of hardware security. His area of interests include security aspects in the operating system, architecture, and VLSI. He is particularly interested in applying learning algorithms and formal methods to analyze the security of systems.



Sri. Sanjeev Dhallam is an ICT professional with 23+ years of wide ranging experience of telecom industry with various perspective of technology both from strategic and execution level. Currently heading design, planning and delivery of Core networks and Telecom Network Security across all lines of business at Airtel. The key expertise includes Security Risk Assessments, Defining Security Roadmap, SOC Operations, Threat intelligence and hunting, Conducting Governance and Compliance Management, Network Transformation, Network Design and Planning, Managed Services, NFV/SDN, 5G, LTE, VAS.

Speakers



Dr. Mukesh Taneja, works as a Vice President at Mavenir Bangalore. In his role, he leads various O-RAN related systems engineering activities for 5G/4G products. He has been in industry for 26+ years and has worked in the areas such Cellular Systems (5G/4G/3G/2G), 802.11 ax/ac/ah, IIoT, LPWA, IP/MPLS and Data Science. He has represented his company in 3GPP, IEEE802, oneM2M and some other standardization groups. He has authored 60+ patent applications and research papers. He received his PhD from the University of California San Diego in 1998. He also completed the Executive General Management Programme from IIM Bangalore. He is a Senior Member IEEE and continues to engage with IEEE activities.

Mr. Heung Youl Youm is Chairman of ITU-T SG17 (Security). He is working as a commissioner (non-standing) for the Personal Information Protection Commission (Govt. of Korea) from August 2020 and as a professor for the Department of Information Security Engineering of the Soonchunhyang University, Korea from September 1990. He is currently the Director of SCH Cybersecurity Research Centre from Dec. 2013. He is a Chairman for the ISMS/PIMS certification committee in Korea from 2007 and a Board director for Korea Information/Security agency from 2019. He is a Chairman of Steering Committee for the Korea Zero trust and software supply chain security from 2022.



Ms. Sungchae Park is a Manager and Senior Researcher of Cybersecurity Emerging-Standards Center (CESC) at Soonchunhyang University, (Republic of Korea). She has extensive experience in private sector cyber security (security solution vendors, AI developers and financial service providers) from 2008 to 2021. She is also an editor of X.st-ssc, X.sc-iot, X.suppl.uc-dcc etc. in cybersecurity, digital certificates, IoT security and 5G&6G security of ITU-T Study Group 17. Currently she is studying an integrated Master's/Doctor's degree in Information Security Engineering at the same University from 2021.

Sri. Shankar Srinivasan leads the IoT & Enterprise 5G solutions for the APJ region. He actively works with Service Providers and large enterprises to understand the needs of private cellular networks, architects helps achieve measurable results for his customers. He has donned several roles in the 24 years of his telecom career, including Sales, Product Management, System Engineering, Incubation lead and solutions architect across Cisco, Ribbon Communications & Nortel.



Sri. Atul Deshpande is a Senior Director and Product Engineering Leader at Cisco with over 25 years of experience in building public cloud SaaS and enterprise on-prem products. His primary domain expertise is in Mobility (5G), IoT, Enterprise Storage Management, Virtualization and SAN. Presently he is a member of Cisco India Leadership team and representing the business unit and driving cross functional initiatives, collaboration, innovation and GTM activities across engineering, professional services, customer support and IT.

Sri. Ravi Guntupalli is a Director of Technology at Cisco and heads mobility innovations within the CTO organization. He is currently focuses on enhancing the next generation of solutions within Cisco's Mass-Scale Infrastructure Group by spending time with various global operators, understanding the next set of deployment challenges, and accelerating their rollouts in both consumer and enterprise markets.



Speakers



Sri. Jagdeep Walia is General Manager and Security Consulting Lead at Ericsson, a world leader in providing Information and Communication Technology (ICT) to telecom service providers. He currently oversees network security engagements in the Market Area South East Asia Oceania India. He is an experienced telecom professional and joined Ericsson in 2003. He is member of TSDSI (Telecommunications Standards Development Society, India) a Standards Development Organisation (SDO) and also GSMA T-ISAC Group actively contributing on topics around network security.

Sri. Niranth Amogh is the head for 6G ecosystem and standardization architects, Nokia, India. He is responsible for 5G/6G services and architecture research and standards in global standardization bodies. He has over 20 years of experience working with different global standards bodies/forums like 3GPP, GSMA, IEEE, ITU, and in India with TSDSI, TEC, COAI, MNOs, academia and Govt. organizations and has held several leadership positions. His key focus areas include service/API exposure research and standards for 5G Advanced and 6G vertical industry applications, platforms for Mission Critical Communications, Edge Computing, API/Service enabler frameworks, Application enablement for V2X, UAV, Smart Factory, M2M/IoT and in NGSON.



Organized by

National Centre for Communication Security

Department of Telecommunications

Ministry of Telecommunications, Govt. of India

NCCS is a Centre under Department of Telecommunications (DoT), responsible for implementation of ComSeC scheme. NCCS aims to meet the following objectives in operating and maintaining the ComSeC scheme.

- Development of country specific standards, specifications and processes.
- Development of testing and certification eco-system.
- Ensure that Telecom network elements meet security assurance requirements.
- Ensure compliance of regulatory requirements pertaining to security testing.

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Centre for Development of Telematics (C-DOT)

C-DOT is an autonomous Telecom R&D Centre of Department of Telecommunications, Govt of India. Established in 1984, C-DOT has contributed significantly in indigenous design, development and production of telecom technologies especially suited to Indian conditions. In its initial years, C-DOT triggered a telecom revolution in rural India that was responsible for all-round socio-economic development. Over the years, C-DOT has developed a large number of products of national and strategic importance in various Telecom areas such as Optical, Switching, Wireless, Security and Network Management. C-DOT is also contributing significantly in development of products in technologies such as M2M/IOT, 5G, AI and Quantum Security.



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