Cordially invite you to the
Computer Security Day Talks (Hybrid Mode)

Date: Thursday, 30th November 2023 :: **Time:** 2.30 PM to 5:30 PM
Venue: Dr APJ Abdul Kalam Auditorium, SETS
MGR Knowledge City, C.I.T Campus, Taramani, Chennai – 600113
(Close to IIT Madras Research Park)

Program Schedule

Time	Session	Speaker
14:30	**Fellowship & Tea**	
15:00	**Inaugural Session**	**Welcome Address** **Dr. N. Subramanian** **Executive Director, SETS** **Brief Introduction About the Program** **Shri. H.R. Mohan** **Chair-Events & Imm Past Chair,** **IEEE CS, Madras, Editor, IEEE CS R10** **Newsletter, Former AVP (Systems), The Hindu**
15:15	**Rethinking Cybersecurity: Evolving Threat Vectors**	**Prof D. Janakiram** **Director** **Institute for Development and Research in Banking Technology**
16:00	**How AI is Reshaping the Cybersecurity Landscape**	**Prof. San Murugesan** **Editor in Chief, IEEE Intelligent System & Director, BRITE Professional Services, Sydney, Australia**
16:30	**Securing Connected World of IOT/IOE: Awareness for Citizens**	**Dr. N. Sarat Chandra Babu** **Advisor** **Data Security Council of India**
17:00	**Safeguarding Your Digital Presence: A Journey into Social Media Security**	**Shri. K. Thirupathi** **Scientist, SETS**
17:30	**High Tea**	

Note:
Scientist/ Professionals/ Faculty / Research Scholars / Students may attend the above said program.
To facilitate logistics, please register at: **Program Link:**
https://forms.gle/6pGuVXhq8hQ2cXSx6   **https://msteams.link/2AFC**

For More Details Contact
Dr P Nageswara Rao | **Dr. Reshmi TR**
Coordinator | **Technical Coordinator**
Contact: 9884143131   workshop@setsindia.net

About Talks & Speakers

Talk-1:

Rethinking Cybersecurity: Evolving Threat Vectors
by
Prof D. Janakiram, Director, IDRBT

About Talk:

The talk explores the dimension of changing technology on cyber security. The technology trends such as generative AI, Blockchain, Cloud and Edge computing, and Quantum Computing have deep implications on cyber security. The talk looks at some of these implications and proposes a different approach to cyber security from the perspective of these emerging threat vectors. A single copy of software running on millions of devices helps the hackers exploit the vulnerability discovered on this single copy to attack any of these devices. On other hand, the ability to customize the software based on local private keys provide an ability to protect the system. In this context the Minimalistic Object Oriented Linux (MOOL) is explored as an example of kernel level security. LoRaWAN based private financial networks is explored as another example of providing security from interent based threat vectors.

Prof. Janakiram brings with him immense experience in various fields of direct relevance to Banking and Financial Technology and took over as the Director of Institute for Development and Research in Banking Technology (IDRBT) on January 24, 2021. Prior to joining IDRBT, he was a Senior Professor at the Department of Computer Science and Engineering, IIT Madras. He was also a Visiting Professor at the Rochester Institute of Technology (RIT) in USA. He has guided 14 Ph.D., over 36 M.S (Research), and 70 M.Tech. students. He has steered many nationally-important research projects with success. He has authored over 150 research papers, edited six books. He has served as an associate editor of IEEE Transactions on Cloud Computing and editor of CSI Journal of Computing. A Ph.D. from IIT Delhi, Prof Janakiram was awarded the Boyscast Fellowship in 1997, the IBM Faculty Award in 2007, Yahoo Faculty Grant in 2009 and JC Bose Innovation Test of Time Award for the year 2022.

Prof Janakiram's professional affiliations include: Board Member of Reserve Bank Innovation Hub (RBIH), Data Security Council of India (DSCI), Indian Institute of Banking & Finance (IIBF), IIIT Kurnool; Senate Member of IIIT, Trichy; Member of Governing Body of Technology Innovation Hub, IIT Bhilai, Sub-committees of Securities and Exchange Board of India (SEBI) and Reserve Bank of India (RBI); Member, Board of Studies member VIT University, Cochin University of Science and Technology, Anna University, Gujarat Technical University, Andhra University, SV University, JNTU, Hyderabad, JNTU, Kakinada; and Academic Council member of Hindustan University; Executive Council member of Cloud Innovation Council; Fellow of Computer Society of India. He was involved in several conferences including the IEEE Cloud Computing for Emerging Markets (CCEM) and Urban Data Science (UDS). He was the principal investigator for a number of projects including MobiTel -- Mobile Telemedicine for rural India (Indo-German Project); Peer-to-peer Concept Search (Indo-Italian collaborative project); Service Oriented Architecture for Linux Kernel (DIT); and Cloud Bursting Architecture for Document Workflow (Xerox). He has also incubated two companies in the cloud computing space.

The Minimalistic Object Oriented Linux (MOOL) developed by his team being distributed by CDAC as part of the Bharat Operating System and Solutions (BOSS),
can be used in unique ways to harden and secure the operating system. The private cloud for machine learning application has been developed on top of MOOL operating systems and is trademarked as CloudMOOL. The technology (MOOL) has several US patents and is licensed to Diamond Bay Technologies, an incubated company in IIT Madras Research Park. The KoreMOOL LLP start-up with licensing agreements with IIT Madras promotes the MOOL technologies globally including the secured Android operating system for mobile devices. Prof. Janakiram is also technical advisor for two Bay Area start-up companies, Quantum Ventura Inc. and Accuknox. His current research focus is on building large scale distributed systems and challenges in big data processing, along with cloud computing and blockchain technologies.

Talk-2:

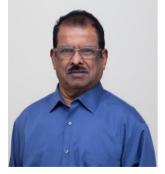## How AI is Reshaping the Cybersecurity Landscape
by
Prof. San Murugesan
Editor in Chief, IEEE Intelligent System & Director, BRITE Professional Services, Sydney

About Talk:

Our extensive reliance on the dynamic digital world faces growing security threats. These threats raise new concerns and pose heightened risks and challenges. In the face of these challenges, however, artificial intelligence (AI) emerges as a good and evil transformative force, reshaping the cybersecurity landscape in unprecedented ways. In this talk, Professor San Murugesan will unveil the evolving AI-empowered cybersecurity landscape and outline the complex relationship between AI and cybersecurity. He will discuss AI's dual role as an invaluable ally to cybersecurity defenders, as defensive AI, and simultaneously as a potent weapon wielded by adversaries as 'offensive AI.' Delving deeper, he will shed light on the vulnerability of AI itself to new breeds of threats unleashed by hackers and the serious impact of compromised AI applications. Further, he will reevaluate and outline the skill set required by all stakeholders, including users, to address security threats in the new digital era. Finally, he will emphasize why a collective commitment to implementing effective solutions and strategies is necessary beyond awareness and recognition of heightened threats and potential mitigation solutions.

San Murugesan is the director of BRITE Professional Services and an adjunct professor at Western Sydney University, Australia. He is a former Senior Research Fellow of the US National Research Council at NASA Ames Research Center in California. He is Editor in Chief of IEEE Intelligent Systems magazine. Murugesan's editorial contributions extend to being the former Editor-in-Chief of IT Professional magazine and Editor of IEEE Computer magazine. His outstanding achievements have earned him the status of a Fellow of the Australian Computer Society, IETE, and IICA. Additionally, he is recognized as a Golden Core Member and Life Senior Member of the IEEE Computer Society. In acknowledgment of his exceptional service, Murugesan was honoured with the IEEE Computer Society's Distinguished Service Certificate, the organization's second-highest service award. His illustrious career includes senior positions at Southern Cross University, the University of Western Sydney in Australia, and the ISRO Satellite Centre (now UR Rao Satellite Centre) in Bengaluru. For more information about San Murugesan, please visit www.tinyurl.com/san1bio.

Talk-3:

Securing Connected World of IOT/IOE: Awareness for Citizens
by
Dr. N. Sarat Chandra Babu
Advisor, Data Security Council of India (DSCI)

About Talk:

In today's interconnected world, the Internet of Things (IoT) and the Internet of Everything (IoE) has revolutionized the way we live and interact with technology. While these advancements offer unparalleled convenience and efficiency, they also introduce significant security and privacy challenges. This talk delves into the essential aspects of IoT/IOE security and awareness required by common users, empowering them with the knowledge for safeguarding in different applications such as intelligent homes to connected vehicles. The talk also addresses the significance of data privacy in this era of interconnected living.

Dr. Sarat worked as the Executive Director (ED) of Society for Electronic Transactions & Security (SETS), Chennai, as ED, C-DAC, Bangalore and Founder Director of C-DAC, Hyderabad. He worked at Department of Electronics, Govt. of India (Presently MeitY), Indian Telephone Industries Ltd. (ITI Ltd.), Bangalore and worked as faculty at REC, Warangal (presently NIT, Warangal). Presently adviser to Data Security Council of India (DSCI) and Honorary principal Adviser to Broadband India Forum (BIF). Dr. Sarat obtained his Ph.D. from IIT, Delhi. He has considerable experience of over Four decades in Institution building, leading National level R&D programs, Project implementation and Co-ordination, Education & training in the areas of cyber security; IOT for smart cities; System software for HPC; e-Learning; ICT for social welfare etc. He has led the team of experts in arriving at the Feasibility study report of India Microprocessor. He is chairing the working group on Cyber Security of BIF; Chairman of e-Learning Section of BIS. He received the prestigious VASVIK Industrial Research Award 2019 for the contributions to Information & Communication Technology. He published close to 80 papers in National/ International Journals and Conferences; guided Ph.Ds to the completion.

Talk-4:

Safeguarding Your Digital Presence - A Journey into Social Media Security
by
Shri. K. Thirupathi, Scientist, SETS

About Talk:

In an era dominated by digital connectivity, social media has become an integral part of our daily lives, serving as a platform for communication, self-expression, and networking. However, as we share more of our lives online, the need for robust social media security practices becomes paramount. I invite you to join me in an enlightening exploration of the realm of social media security, where we will delve into diverse strategies to fortify your digital world. This presentation is designed to empower you with the knowledge necessary to navigate the ever-evolving landscape of social media while safeguarding your personal information from potential threats. Together, let's embark on a journey to enhance our digital resilience and ensure a secure and confident online presence.

Shri. Thirupathi K working as a Scientist at SETS, Network Security Research Group, Chennai. With over 12 years of experience, he specializes in developing network security products and providing comprehensive cyber security solutions to end-users. His research interests revolve around Cyber Security, Network Traffic Analysis, Intrusion Detection/Prevention Systems, the design of Network Firewall Systems, Virtual Private Networks, and Security Information and Event Management (SIEM). His notable accomplishments includes developing indigenous security solution for National critical infrastructure, conducting Vulnerability Assessment and Penetration Testing for critical network infrastructure. He is a certified Ethical Hacker, followed by a certified ISMS Lead Auditor and a Cisco Certified Network Associate certificate holder. His extensive background underscores a commitment to advancing the realms of cyber security through both practical application and research exploration.