CURRICULUM VITAE

1. Personal Information

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2. Introductory Details

Over 23 years of rich experience in the area of cybersecurity, IT management, teaching & research and training.

Current Memebership(s):

- Mauritius's representative to UN Open Ended Working Group (OEWG) on Cyber for the period 2021-2025
- Member of the African Union Cyber Security Expert Group (10-member continent level expert group constituted by the African Union Commission in November 2019)
- Board Member, AfricaCERT
- Chairperson, Policy, Procedures and Governance (PPG) Technical Working Group (TWG),SADC
- Vice-Chair of the SADC Regional CIRT (SR-CIRT) Steering Committee
- Pillar Coordinator for Mauritius, Pillar on Cybersecurity, Protection of Critical Infrastructure and Technology, Colombo Security Conclave (an initiative of India, Sri Lanka, Maldives, Mauritius, Seychelles and Bangladesh)
- Member, SADC Regional CIRT Task Force (constituted in 2022)
- Member, GFCE Working Groups on Cybercrime & Cybersecurity Culture and Skills and Cybersecurity Strategies
- CAMP (Cybersecurity Alliance for Mutual Progress based in Seoul, South Korea) Operations Committee (OC) member for the year 2023. Currently serving as the OC member for 2025.
- Member, National Cybersecurity Committee, Mauritius, an apex committee setup to coordinate and oversee national cybersecurity matters (constituted in 2022)
- Board Member, ICT Authority (ICT Regulator in Mauritius)

Past Memebership(s):

- Mauritius's representative to UN Group of Governmental Experts (UNGGE) on Cyber for the period 2019-2021
- Chairperson, International Telecommunication Union Centre of Excellence Network for Africa (2020-2021)
- CAMP (Cybersecurity Alliance for Mutual Progress) Operations Committee Technical Lead for three consecutive years from 2017-2020 (CAMP is a cybersecurity alliance of more than 50 countries & organizations, driven by the Korean Internet Security Agency, Seoul, South Korea).
- Lead, Cybersecurity and Cybercrime Act 2021 Drafting Committee, Mauritius (constituted in June 2022)
- Member, Nominations Committee 2018 (AFRINIC Governance Committee)- AFRINIC

Award:

- National Innovation Hall of Fame Award 2025 (Winner Team for the implementation of project on Cybercrime Reporting at the national level), awarded by the Mauritius Research and Innovation Council, Republic of Mauritius.
- Meritorious Award for serving Africa and AfricaCERT, awarded by AfricaCERT in 2023
- Public Service Excellence Award 2023 (Runners Up Team for the implementation of project on Cyber Threat Information Sharing), awarded by the Ministry of the Public Service and Institutional Reforms, Republic of Mauritius.
- Medalist, IT Personality of the Year Award, given by the British Computer Society Mauritius in 2011

3. Work Experience

2011-Till Date- Computer Emergency Response Team of Mauritius (CERT-MU)

CERT-MU is the national CERT of the Republic of Mauritius and it operates under the Ministry of Information Technology, Communication and Innovation. CERT-MU coordinates cyber incidents and promotes the culture of information security at the national level.

- Officer-In-Charge, Computer Emergency Response Team of Mauritius

  The overall management of CERT-MU operations which includes the management of Security Operations Centre, ITU Academy Training Centre and CERT functions with a team comprise of Information Security Consultants and SOC analysts.

Responsibilities include:

1. Lead and manage the CERT-MU functions that includes the formulation, planning and coordination of strategic and operational plans and the preparation, presentation and management of the operational and project budget
2. Provide organizational leadership and strategic guidance in the organization and coordination of the CERT-MU's activities
3. Management of SOC operations (it is a Government SOC which is operational at the Government Online Centre (GOC). GOC is a Data Centre of the Government of Mauritius).
4. Management of ITU Academy Training Centre (international ITU capacity building center setup in Mauritius for local and international trainings in the area of cybersecurity. The center is operational since 2020)
5. Provide leadership and strategic guidance in creation of innovative partnerships and organization of workshops and trainings
6. Engage with relevant regional and international organizations such as African Union, AfricaCERT, SADC, Council of Europe, GFCE, Commonwealth Foreign Office, FIRST, CAMP, Gmail, Hotmail, Facebook and international CERTs with the objective of creating synergies, leveraging resources and expanding outreach to a wider audience and promote the CERT-MU's work and outputs
7. Represent CERT-MU during conferences and at international fora, meetings and workshops focusing on the areas of cybersecurity
8. Liaise with stakeholders to promote the activities of Child Online Protection.
9. Plan and coordinate the preparation of a variety of management reports, project reports, articles and inputs to speeches
10. Organise capacity building programmes in cybersecurity and cybercrime.
11. Coordinate Information security incidents
12. Coordinate the promotion and implementation of the ISO 27001,27010
13. Coordinate the organization of Cybersecurity drills
14. Coordination of Information Security Risk Assessment and Cybersecurity Audits

Projects Undertaken at CERT-Mauritius

- Lead, Development of National Cybersecurity Strategy and Action Plan for Mauritius [2014]

  Lead the development of national cybersecurity strategy for Mauritius. Finalized the methodology and TOR for conducting national level survey on the state of information security in businesses in Mauritius. The inputs of the survey were used to finalise the strategic action lines. Developed the Public and Private Partnership model for the strategy. Assisted in carrying out the legal framework assessment to work out the required legal provisions for the implementation of the strategy. Strategy was approved by the government in October 2014.

- Lead, Development of National Cybercrime Strategy and Action Plan [2017]

  Lead the development of the National Cybercrime Strategy for Mauritius. The goals of this strategy were to:

  - ensure that law enforcement is able to detect, investigate cybercrime in a more efficient way
  - provide an effective legal framework for investigating and prosecuting cybercrime
  - enhance the capacity of judiciary to deal with cybercrime and digital evidence
  - develop an enhanced intelligence picture of the cybercrime threat facing Mauritius
  - work with International counterparts to improve cooperation on cybercrime
  - work with International counterparts to improve cooperation on cybercrime

- educate the community on the risks of cybercrime

The strategy was approved by the cabinet on 25 August 2017.

- Lead, Development and Implementation of Mauritian Cybercrime Online Reporting System (MAUCORS) [2018]

  Lead the development and implementation of MAUCORS in 2018. It is centralized system where all other stakeholders have an access. The system has helped CERT-MU and other stakeholders to escalate and resolve incidents effectively. The statistics gathered from the system are used for the risk profiling.

- Lead, Implementation of Information Security Management System (ISMS) at CERT-MU [2017]

  Lead the design and implementation of the Information Security Management System at CERT-MU. The activities carried out during the implementation of ISO 27001 are as follows:

  - Carry out the risk analysis, risk assessment and risk quantification of the organizational processes
  - Development of the asset register
  - Development of the Risk Treatment Plans
  - Writing of Policies and procedures
  - Implementation of controls and finalization of the Statement of Applicability
  - Carrying out of the Internal Audit

  CERT-MU is ISO 27001 certified team since June 2017.

- Lead, Affiliation of CERT-MU with FIRST [2012]

  Lead the affiliation process of CERT-MU with the Forum of Incident Response and Security Teams (FIRST). The compliance required the alignment of policies and procedures and setting-up of the secure environment based on the guidelines of FIRST. CERT-MU was affiliated to FIRST in 2012.

- Lead, Second party Information Security Audit [Since 2011]

  Supervised and coordinated the second-party information security audits for premier institutions such as Bank of Mauritius, State Bank of India (Mauritius), State Insurance Company (SICOM), Central Waste Water Management Authority.

- Lead, Setting up of a national Cyber Drill Infrastructure [2017]

  Lead the setting up of the national cyber drill infrastructure to assess organization's capabilities in responding to incidents, managing crisis, ability to have holistic business view on security and fostering communication.

  Organized many national cyber drills for critical infrastructures.

- Cybersecurity Theme Leader, Digital Mauritius Strategy 2030 [2018]

  To provide a conducive environment for secure, resilient, inclusive, sustainable and innovative society in the digital economy, the Government has developed a Digital Mauritius 2030 strategic plan in 2018 where one of the focus was on cybersecurity. The task included:

  - Leading the stakeholders group consultation
  - Presentation of the strategic directions during the consultation workshop
  - Chairing of the stakeholder's meetings to work out the action plan
  - Assistance in drafting the Digital Mauritius 2030 Strategic Plan report

- Lead, organisation of national Information Security Events and Capacity Building Programmes [since 2010]

  Organised several national and international workshops and trainings on cybersecurity since 2011 including Technical Colloquium, Technical Symposium with the support of Forum of Incident Response and Security Teams (FIRST) and AfricaCERT.

- Lead, Development and finalisation of National Incident Response Plan [2020]

Driven the development of the national cyber incident response plan which was approved by the Government in 2020. The plan talks about the governance structure, incident classification and its rating as well as the functions of the incident handling and the PR team. It will facilitate the resolution of incident during the cyber crisis situation. Currently the plan is being implemented.

- Lead, Drafting Committee, Cybersecurity and Cybercrime Act [2021]

  Lead the technical drafting of the Cybersecurity and Cybercrime Bill 2021. Aligned it with the Budapest Convention on Cybercrime and AU Convention on Cybersecurity and Personal Data Protection. The act has been assented and proclaimed in December 2021

- Lead, Setting up of the ITU Centre of Excellence on Cybersecurity in Mauritius [2020]

  The ITU Centre of Excellence, now known as the ITU Academy Training Centre was set up in Mauritius in 2020 in the area of cybersecurity. The center is serving as a platform for the capacity building, harmonization of legislation and international cooperation within the region. Conducted number of trainings. Some 200 participants have been trained from more than 30 countries from Africa, Arab region and Asia.

- Lead, Setting up and Operationalisation of Security Operations Centre for the Government [2021]

  Lead the set-up and operationalization of the Government Security Operations Centre (SOC) in 2021. As part of the SOC, a combination of tools has been installed and connected to the Government Online Centre's IT infrastructure. A team of personnel has been formed to monitor and analyse the cyber threats on day-today basis.

- National Cybersecurity Strategy [2023]

  Lead the review of the National Cybersecurity Strategy 2023-2026 for Mauritius. The goals of this strategy were to:

  - Enhance the resiliency of the cyber infrastructure
  - Improve the security of Cyberspace
  - Promote Innovation, Enterprise Security and Cybersecurity Education
  - Strengthened Regional and International Cooperation

  The strategy is being implemented.

Current projects

- Critical Information Infrastructure Protection Framework implementation

  - Worked out the criteria for the identification of national Critical Information Infrastructure (CII) and Systems
  - Devised method for risk and vulnerability assessment
  - Develop parameters for risk profiling
  - Develop the capacity building framework for the technical staff at the level of CIIs

  The CIIP framework is currently implemented by the National Cybersecurity Committee.

- Lead, setting up of the National Cybersecurity Interactive Simulation System

  Supervising the set-up of a national cybersecurity interactive simulation system that will be used as part of CERT-MU's cybersecurity drill infrastructure to build cyber defense capabilities of organizations.

- Enhancement of the Government Security Operations Centre.

International Assignments

1. Lead, International Cyber Security Drill for Africa [2016]

   Coordinated the organization of a regional Africa Cybersecurity Drill in collaboration with International Telecommunication Union in April 2016 in Mauritius. 19 countries participated. The cyber drill exercise was focused on building the incident response capability of the participating teams.

2. Lead, Organization of Cyber Drill for Southern African Development Community (SADC) [2018]

   Lead the execution of the cyber drill for SADC countries in September 2018. It was attended by 66 delegates from 14 countries including Mauritius. 5 simulation scenarios were conducted by the CERT-MU team, namely Cyber Extortion, Phishing, Malware Analysis, Ransomware and the Reverse ARP attack.

   The idea of the cyber drill exercise was to build capacity and improve the incident response capabilities; gauge and improve the preparedness in the identification, response, prevention and resolution of computer incidents.

3. Lead, organisation of FIRST AfricaCERT Technical Symposium [2021]

4. Lead, Organization of Online Cyber Drill for Southern African Development Community (SADC) [2022]

5. Lead, online Africa Cyber Drill 2021, 2022, 2023 and 2024 organized by the AfricaCERT

6. Lead, organisation of Cyberdrill scenario during the ITU's Regional Cybersecurity Summit for Africa held in November 2023 in Kampala, Uganda

2008-2010 Computer Emergency Response Team of Mauritius

- *Information Security Consultant, Computer Emergency Response Team of Mauritius (CERT-MU)*

Responsibilities Include:

- Involved in security reviews, risk analysis, business continuity strategy, disaster recovery plans, and security architecture reviews in all internal and outsourced environments
- Carried out vulnerability scanning and penetration test of various organisations IT infrastructure.
- Carried out vulnerability research and issue advisories, vulnerability notes and virus alerts on a daily basis
- Carried out research on latest trends in Information Security
- Carried out incident analysis tracking, recording and response
- Developed a secure framework for incident handling for CERT-MU. Implemented the framework to handle incidents
- Develop materials promoting best practices and guidelines on Information Security
- Develop training materials on Information Security related topics

3/2003-8/2008 CDAC School of Advanced Computing, University of Mauritius

- *Lecturer, CDAC School of Advanced Computing affiliated to University of Mauritius*

Responsibilities include teaching undergraduate and graduate courses in Information Technology, as well as supervising undergraduate & graduate students and conducting research in the area of Information Security.

2002-2003 Leisure Garments Limited, Mauritius

- *Analyst Programmer*

As part of the responsibilities of an Analyst Programmer, I was also assigned to oversee the whole operation of the IT department which includes the following:

1. Development of textile management software (EGMS)
2. End user Support & training
3. Network monitoring: administer LAN & WAN, network analysis, Planning & security
4. Provide support on Microsoft and Cisco backup software
5. Administer & configure Cisco routers
6. Deploying various security solutions, security audit, patching security vulnerabilities & Security policies
7. Troubleshooting of LAN & printers
8. Procurement of Equipment

Education and Training

2015 Graduate Diploma in Leadership Development in ICT and the Knowledge Society, Dublin City University, Dublin, Ireland (Distinction)

2014 Ph.D. in Computer Applications (Thesis Title: Enhanced Security Framework for Ubiquitous Computing), Gru Gobind Singh Indraprastha University, New Delhi, India

2000 Masters of Computer Science & Applications (M.C.A.), Aligarh Muslim University, Aligarh, India

1997 Bachelor of Science & Engineering, Aligarh Muslim University, Aligarh, India

Technical Skills Set Summary: Certifications (Professional Qualifications)

- Certified Ethical Hacker (EC-Council)
- BS 25999 Lead Auditor (BSI)
- Certified Information Security Professional- CISP (STQC-India)
- ISO 27001 Lead Auditor (IRCA),
- Certificate in Secure Software Development Life Cycle Practices (STQC-India)
- Certificate in Green IT Foundation (certification by BCS on Green IT)

Personal Skills and Competences:

Focus: Cybersecurity/cybercrime/ Network Security:

- Cybersecurity strategy development and implementation
- CERT setup and governance
- Technical writing of legal provisions related to cybersecurity and cybercrime
- Public and Private cooperation
- Cybercrime prevention and reporting system
- Information Risk Management & Contingency Planning
- ISO 27001, FIRST Services Framework, SIM3, NIST
- Security Incident Response Programs
- Contingency Planning
- IT Audit & Compliance Management
- Security Tools, Processes & Policies
- IT Governance & Best Practices
- DNSSEC Security and RPKI
- Information Privacy & Online Safety
- International cooperation
- Excellent technical knowledge and experiences in cybersecurity
- Excellent leadership skills and supervision experience

- Has consistently demonstrated the ability to achieve impactful outcomes through effective cross-disciplinary and cross-institutional collaboration, leveraging diverse expertise and stakeholder engagement
- Proven ability to shape dialogue and influence policy on digital infrastructure and its cross-sectoral applications
- Strong strategic acumen with a proven ability to set priorities, discontinue low-impact initiatives, and streamline product and service portfolios for greater efficiency and value delivery
- Extensive experience in building and managing collaborative partnerships involving diverse stakeholders across public and private sectors, with a strong focus on achieving shared results.
- Demonstrated experience in leveraging practical expertise and engaging in effective policy dialogue to drive tangible development outcomes
- Strong written and verbal communication skills, with proven experience engaging effectively with media, external stakeholders, and expert groups across diverse platforms and contexts
- In-depth understanding of developing a strategic vision and translate it to a forward looking program keeping national and global engagement component.
- Proven ability in developing and curating global knowledge and thought leadership to inform policy, shape strategy, and drive innovation across sectors
- Experienced in supporting client engagement through strategic relationship-building, needs assessment, and delivery of tailored solutions to drive client success
- Ability to formulate risk mitigation strategies
- Proven ability to build relationship and building a performance oriented team

Industry thought leadership and activities:

- Authored magazine papers which are published in the Global Cyber Expert Magazine. The details are as follows:

    1. Usmani K.A., et.al.,"Capacity Building is the Key to Fight Against Cybercrime: The Mauritian Perspective" Global Cyber Expertise Magazine – Issue 4 - November 2017
    2. Usmani K.A.,et.al. "Cybersecurity Strategy: A Tool for Better Cyber Defence", Global Cyber Expertise Magazine Issue 2-December 2016.

- Authored articles on Cybersecurity in Mauritian local newspapers

- Speaker and subject matter expert at numerous industry conferences and executive forums (e.g. United Nations, UNIDR AfricaCERT, AFRINIC, Council of Europe, European Union, ITU, SADC, COMESA, UNECA, GFCE, CAMP, Diplo Foundation, Indian Ocean Commission Forums, Times Group Webinars etc.)