Building a Statewide IoT Security Foundation Ecosystem for Tamil Nadu

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About SkillsDA

1 Expertise

Premier organisation for skilling, training, and consultancy in emerging technologies.

2 Certification

ISO 9001:2015 and ISO/IEC 27001:2022 certified by TUV SUD.

3 Focus Areas

IoT, Cybersecurity, Digital Forensics, AI, Data Science, Blockchain, and Cryptocurrency.

SkillsDA's State-of-the-Art Infrastructure

IoT Lab: Immersive Learning

Our cutting-edge IoT lab provides a simulator-based learning environment, allowing students to gain hands-on experience with real-world IoT technologies. Students work with a variety of sensors, actuators, and networking protocols in a safe and controlled environment.

Digital Forensics Lab: NABL Accredited Excellence

SkillsDA's Digital Forensics Lab is a NABL-accredited facility, ensuring the highest standards of quality and reliability in our training programs. Equipped with industry-standard tools and software, the lab offers advanced training and testing capabilities, preparing students to meet the challenges of digital investigations. .

SkillsDA's Achievements

1

National Recognition

Winner of MHA-14C DISC 9 challenge for cybercrime security courseware.

2

Industry-Aligned Certifications

Tailored to the National Skills Qualification Framework (NSQF).

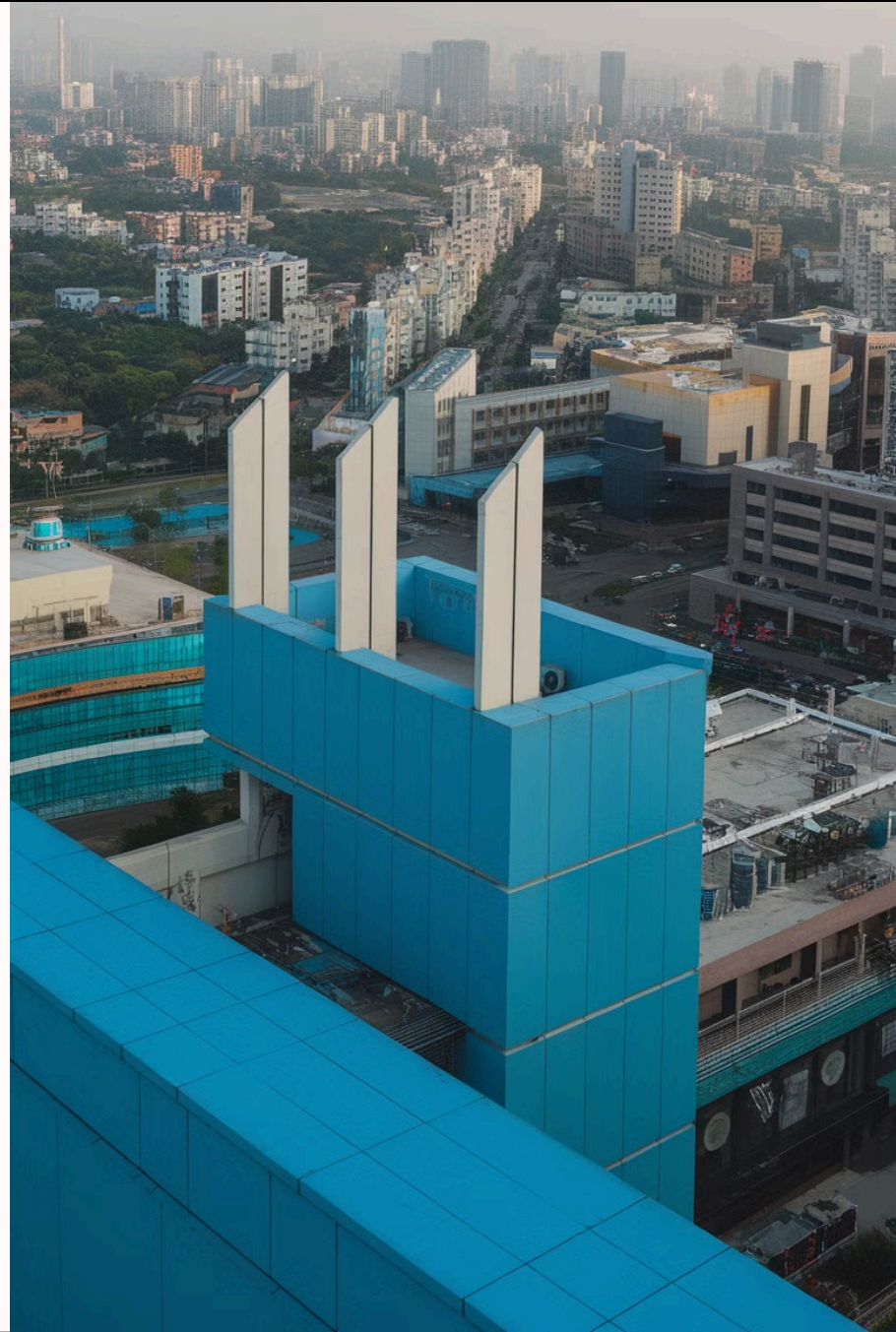
3

Advanced Learning Management System

Enhances accessibility with blended and distance learning options.

Tamil Nadu: Key Demographics

Total Population (2024 est.)	~81.5 million
Population Density (est.)	620 people/sq km
Urban Population (est.)	52%
Major Urban Centers & Focus Industries	**Chennai:** IT, Automotive, Manufacturing **Coimbatore:** Textiles, Manufacturing, Engineering **Madurai:** Textiles, Education, Agriculture



Industrial Landscape of Tamil Nadu

Manufacturing Units

~10,000 units across automotive, textiles, and electronics sectors.

Technology Companies

~4,000 tech firms, with major hubs in Chennai and Coimbatore.

Foreign Companies

~1,500 international firms, including BMW, Foxconn, and Dell.

Educational Landscape Supporting Tamil Nadu's Tech Industry

Engineering Colleges & Industry Alignment

~500 institutions, educating approximately 500,000 students, many of whom directly enter the region's thriving manufacturing and technology sectors (see previous slide).

Key Institutions & Emerging Technologies

Top institutions like Anna University, VIT, and PSG College of Technology are increasingly focused on IoT and smart manufacturing, preparing graduates for the jobs of tomorrow (see next slide).

Geographic Distribution & Talent Hubs

Chennai's concentration of 26 colleges, and Coimbatore's 19, reflects the geographical distribution of major technology and manufacturing hubs, creating localized talent pools.

IoT Applications in Tamil Nadu's Manufacturing Sector

1

Smart Factories

IoT-enabled monitoring and automation boost efficiency in over 200 factories across Tamil Nadu, focusing on textiles, automotive and electronics manufacturing. Key improvements include reduced downtime and optimized resource allocation.

2

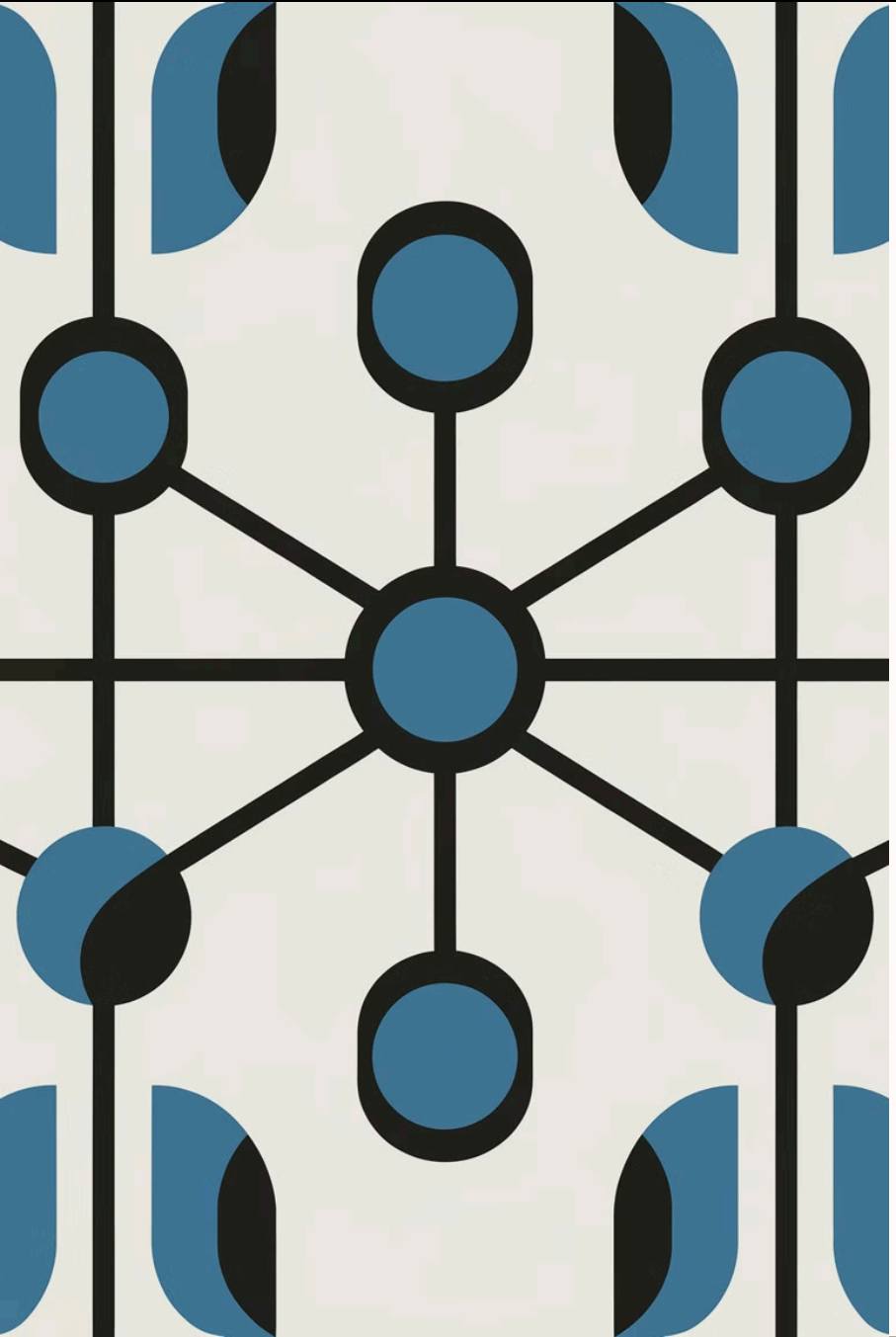
Supply Chain Optimization

Real-time tracking of materials and goods enhances supply chain visibility. This system directly connects over 150 key suppliers and manufacturers with central hubs in Chennai and Coimbatore, minimizing delays and enhancing quality control.

3

Predictive Maintenance

Advanced sensors predict equipment failures in real-time, reducing maintenance costs by an average of 15% across participating factories. This system proactively schedules maintenance, preventing disruptions and ensuring operational continuity.



Proposed Hub-and-Spoke Model

1

Monthly Virtual Sessions

Rotational hosting by spokes, focusing on regional expertise and innovations.

2

Annual Mega Event

Flagship event in Chennai featuring keynotes, exhibitions, and networking opportunities.

3

Focused Workshops

Hands-on sessions on IoT security, forensics, and manufacturing applications.

Benefits of Hub-and-Spoke Model

1 Statewide Collaboration

Connects all regions, ensuring participation from tier-2 and tier-3 cities.

2 Diverse Perspectives

Rotational hosting brings varied ideas and experiences to the forefront.

3 Talent Development

Regional hubs focus on skill development aligned with local industry needs.

4 Enhanced Innovation

Combines academic research with industry insights for tailored IoT solutions.

SkillsDA as IoTSF Master Chapter

Technical Expertise

SkillsDA boasts advanced facilities, including a NABL-accredited Digital Forensics Lab and a state-of-the-art IoT Lab equipped to handle complex projects. These resources support the development of secure and efficient IoT solutions, crucial for the hub-and-spoke model's success.

Proven Leadership

SkillsDA's leadership in the Chennai IoTSF chapter, coupled with national cybersecurity challenge victories, demonstrates their ability to foster statewide collaboration and drive innovation. This experience directly translates to effectively managing the Master Chapter and coordinating regional hubs.

Partnership Network

SkillsDA has established strong partnerships with top universities and institutions in Tamil Nadu, focusing on IoT and Cybersecurity. Key collaborations include ,Anna University, Kalasilingam University, KSR Institutions, SONA Group of Institutions, SRM Institute of Science and Technology and also has MOUs with over 200 colleges, driving large-scale initiatives in skilling, research, and capacity building across IoT and cybersecurity.

Conclusion

1

Ideal Leadership

SkillsDA's expertise and infrastructure align seamlessly with IoTSF objectives.

2

Statewide Impact

Hub-and-spoke model ensures collaboration, inclusivity, and sustainable growth in IoT sector.

3

Innovation Driver

Positioned to drive innovation and foster a secure, collaborative IoT ecosystem.

Thank You

We are grateful for the opportunity to present our vision for a statewide IoT security ecosystem in Tamil Nadu. This collaborative, inclusive approach will drive innovation and secure the region's expanding IoT applications.