



Special Issue - Innovative Commerce: Bridging Business and Computer Applications (ICBBCA-2026)

PG Department of Commerce with Computer Applications, Mannar Thirumalai Naicker College, Madurai – March 2026

A STUDY ON THE INITIATIVES OF ICT ACADEMY FOR INFORMATION TECHNOLOGY AND DIGITAL SERVICES DEPARTMENT IN THE GOVERNMENT OF TAMIL NADU

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Abstract

This study evaluates ICT Academy's collaborative initiatives with Tamil Nadu's Information Technology and Digital Services Department across seven key areas: faculty development, skill development, entrepreneurship, youth empowerment, research & publications, digital literacy, and industry-institute interaction. Drawing from secondary sources including official reports, journals, and media, it reveals significant enhancements in teacher capabilities, student employability, entrepreneurial talent, research output, digital skills, and academia-industry linkages. These efforts have markedly advanced workforce readiness, inclusive education, innovation, and socio-economic progress, strongly supporting Tamil Nadu's vision of a digitally skilled, knowledge-driven society.

Introduction

The ICT Academy of Tamil Nadu, established in 2010 as a public-private partnership between the Government of Tamil Nadu, industry, and academia, bridges education with the knowledge economy. Through targeted programs in faculty development (2010+), skill enhancement (2012+), entrepreneurship (2013+), youth empowerment (2015+), research & publications (2016+), digital literacy (2016+), and industry-institute interaction (2014+), it has trained thousands of faculty, skilled lakhs of students and youth, and advanced competencies in AI, cybersecurity, IT, and more. Recent 2024-2025 initiatives, including Rs 60 crore corporate MoUs and events like BRIDGE and AI summits, continue to align education with industry demands, driving inclusive, innovative, and digitally empowered growth in the state.



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Review of Literature

Several studies confirm the value of ICT Academy of Tamil Nadu's initiatives in improving digital competencies and education. Saravanaraj and Vijayakumar (2019) highlighted ICT training needs for faculty; Subaveerapandiyan and Nandhakumar (2022) showed ICT's role in pandemic-era teaching; Subaveerapandiyan and Sinha (2022) stressed guided digital literacy for students; Balachandran (2023) emphasized faculty-industry collaboration for industry-ready graduates; and Devi Premnath et al. (2025) noted inclusive digital empowerment for women. Together, they validate the Academy's success in closing skill gaps and promoting inclusive digital growth in Tamil Nadu.

Objectives of the Study

1. To Examine ICT Academy's initiatives with Tamil Nadu's IT & Digital Services Department.
2. To assess faculty development's impact on teachers, students, and institutions.
3. To evaluate skill development's effect on employability and global certifications.
4. To analyze entrepreneurship development outcomes.
5. To Measure youth empowerment's influence on leadership and talent.
6. To examine research & publications' role in knowledge creation and visibility.
7. To assess digital empowerment's impact on citizens, teachers, and students.

8. To evaluate industry-institute interaction's effectiveness in fostering collaboration.

Research Methodology

The study employs a descriptive research design, using only secondary data from official ICT Academy reports, government documents, academic journals, research papers, and media sources. It applies quantitative techniques (tabular and percentage analysis) alongside qualitative content analysis to evaluate the effectiveness, outcomes, and challenges of ICT Academy's initiatives with Tamil Nadu's Information Technology and Digital Services Department. Covering seven core programs—Faculty Development, Skill Development, Entrepreneurship Development, Youth Empowerment, Research & Publications, Digital Empowerment, and Industry-Institute Interaction—the analysis offers a comprehensive assessment of their scope and transformative role in advancing digital education, workforce readiness, and inclusive growth in the state.

The Initiatives of ICT Academy for Information Technology and Digital Services Department In The Government Of Tamil Nadu

ICT Academy, in partnership with Tamil Nadu's Information Technology and Digital Services Department, drives seven key initiatives: Faculty Development to enhance teaching skills, Skill Development to boost



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graduate employability, Entrepreneurship Development to foster innovation, Youth Empowerment to build leadership and soft skills, Research & Publications to promote knowledge creation, Digital Empowerment to improve literacy for students, teachers, and citizens, and Industry-Institute Interaction to strengthen academia-industry-government collaboration for better skill alignment and inclusive growth.

Faculty Development

The ICT Academy Faculty Development Framework in Tamil Nadu offers a structured, outcome-oriented

approach to strengthen faculty training and student readiness. It includes Training of Trainers (ToT), assessments, certifications, and programs covering emerging technologies (AI, cloud computing, cybersecurity, data analytics) as well as soft skills (communication, leadership, modern pedagogy). This equips educators for industry-aligned teaching, improves instructional quality and research engagement, and supports India's goals of innovation, sustainable development, and a future-ready workforce.

Table 1 Impact of Faculty Development Initiatives on Teachers, Students, and Institutions

Faculty Development	Teachers Trained	Students Benefited	Programs Conducted	Institutions Benefited
Developing the Next Generation Teachers	60091	3004550	1682	2913

Table 1 highlights the substantial impact of ICT Academy's faculty development initiatives in Tamil Nadu, where 60,091 teachers have been trained through 1,682 programs across 2,913 institutions, ultimately benefiting over 3,004,550 students. These figures underscore the wide reach, effectiveness, and scale of structured training in elevating teaching quality, building institutional capacity, and enhancing student learning outcomes.

Skill Development

The ICT Academy Skill Development Framework in Tamil Nadu delivers industry-aligned, NSQS-compliant training to equip graduates and youth with future-ready skills. It focuses on hands-on programs in high-demand areas: IT & ITES (advanced programming, cloud computing, data science, big data analytics, software testing), Electronics Design (VLSI, embedded systems, digital signal processing), and Engineering Design (multicore programming, BIM), plus foundational digital literacy for non-IT



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learners. By closing the academia-industry workforce growth to support evolving gap, it boosts employability, technical industry demands and Tamil Nadu's proficiency, adaptability, and inclusive economic progress.

Table 2 Impact of Skill Development Initiatives on Employability and Global Certification

Skill Development	Students Trained	Global Certification Obtained
Developing Employment Ready Graduates and Youth	241250	196343

Table 2 demonstrates the strong effectiveness of ICT Academy's skill development initiatives in Tamil Nadu, where 241,250 students were trained and 196,343 successfully earned global certifications. This high certification rate (approximately 81%) reflects the programs' alignment with international standards, high quality, and strong industry relevance, significantly boosting employability and preparing graduates and youth for the global workforce.

Entrepreneurship Development

Entrepreneurship drives economic growth, innovation, job creation, and inclusive

development by turning ideas into viable businesses and boosting global competitiveness. In India, nurturing talent across technology, manufacturing, rural, and social sectors is key to unlocking potential, reducing poverty, and meeting employment needs through private-sector opportunities. The ICT Academy Entrepreneurship Development Framework in Tamil Nadu empowers youth with structured, outcome-oriented programs and diverse delivery models, building a strong ecosystem that fosters innovative entrepreneurs and supports sustainable economic and societal progress.

Table 3 Outcomes of Entrepreneurship Development Initiatives

Entrepreneurship Development	Entrepreneurship Awareness Created	EDP Trained	EDP Centres	Entrepreneurs Nurtured
Developing Entrepreneurs	281789	14680	50	214

Table 3 showcases the impactful reach of ICT Academy's entrepreneurship development efforts in Tamil Nadu, where awareness was created among 281,789 individuals, 14,680 participants received structured Entrepreneurship Development Programme (EDP) training across 50 centres,

and 214 entrepreneurs were successfully nurtured. These outcomes highlight the focused conversion of awareness and training into real entrepreneurial ventures, promoting self-employment, innovation, and sustainable economic growth in the state.



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Youth Empowerment

Developing India's youth is vital as the nation becomes one of the youngest globally, with young people key to economic and social progress. Alongside technical skills, soft skills like communication, leadership, teamwork, problem-solving, adaptability, resilience, creativity, and self-confidence are crucial for thriving in a competitive world. ICT

Academy's youth empowerment initiatives in Tamil Nadu, through youth circles, summits, seminars, and contests, promote holistic development, leadership, and employability, preparing responsible, future-ready leaders for nation-building and sustainable transformation.

Table 4 Impact of Youth Empowerment Initiatives on Leadership and Skill Development

Youth Empowerment	Summits	Youth Power Seminars	Youth Contest Participants	Youth Recognitions
Developing Today's Youth to Lead Tomorrow's India	15	1835	220844	90

Table 4 illustrates the strong impact of ICT Academy's youth empowerment initiatives in Tamil Nadu, engaging 220,844 young participants through 15 summits and 1,835 Youth Power seminars, while awarding special recognitions to 90 outstanding individuals. These efforts effectively build leadership, confidence, and active engagement, equipping youth with essential skills to become future leaders and contribute meaningfully to society and nation-building.

Research & Publications

The global research landscape increasingly features contributions from emerging economies like India, which has vast technical talent but struggles with low

researcher density and limited high-impact publications. Strengthening research ecosystems through academia-industry-society collaboration, mentorship, and sustained support is vital to enhance quality, citations, and innovation. In Tamil Nadu, ICT Academy's Research and Publications initiatives foster a vibrant research culture by supporting peer-reviewed journals, knowledge-sharing platforms, and dissemination opportunities, enabling researchers, educators, students, and industry professionals to engage with emerging trends and methodologies, thereby advancing India's goal of becoming a knowledge-driven, innovation-led economy.



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Table 5 Impact of Research and Publication Initiatives on Knowledge Creation and Global Visibility

Research & Publications	International Journals	Research Work Published	Editorial and Review Board	Global Indexing
Developing Indian Based Content and Promoting Research	6	1834	588	22

The table 5 demonstrates the effectiveness of research and publication initiatives in promoting Indian-based research and academic content. Through 6 international journals, a total of 1,834 research works have been published, supported by 588 members on editorial and review boards and indexed in 22 global databases. This reflects a strong emphasis on quality research, peer review, and international visibility, contributing to knowledge creation, academic recognition, and global dissemination of Indian research.

Digital Empowerment

ICT Academy’s Digital Empowerment initiatives in Tamil Nadu play a crucial role in promoting digital inclusion by providing practical training to citizens, teachers, and students in rural and remote areas. These programs build essential digital literacy skills, enable access to education, healthcare, financial services, e-governance, and jobs, and foster confident use of technology. Aligned with the Digital India vision, they bridge the digital divide, drive last-mile connectivity, empower communities, and support inclusive, equitable growth across the state.

Table 6 Impact of Digital Empowerment Initiatives on Citizens, Teachers, and Students

Digital Empowerment	NDLM Certification	Teachers Trained	Assessed & Certified	Total Courses/Digital Badges Completed By Students
Empowering Citizen, Students and Teachers to Embrace the Digital Revolution	5807079	9591	76350	610185

Table 6 demonstrates the extensive reach and success of ICT Academy's digital empowerment initiatives in Tamil Nadu, with 5,807,079 NDLM certifications issued, 9,591 teachers trained, 76,350 individuals assessed and certified, and students completing 610,185 courses earning digital badges. These

impressive figures highlight the programs' effectiveness in building widespread digital literacy and skills, enabling citizens, students, and educators to confidently engage in the digital ecosystem and advancing inclusive growth toward a digitally empowered India.



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Industry-Institute Interaction

Strong industry-institute interaction is crucial in today’s globalized economy to align engineering curricula with global standards, provide students practical exposure, and improve employability in multinational companies. Sustained collaboration enhances teaching practices, boosts placements, and drives applied research and innovation.

Supported by initiatives like Make in India, these partnerships –connecting industry leaders, academic heads, and policymakers – build future-ready talent, strengthen academia-industry ecosystems, and accelerate economic and technological progress in Tamil Nadu and beyond.

Table 7 Impact of Industry-Institute Interaction Initiatives on Collaboration and Knowledge Sharing

Industry-Institute Interaction	Bridge Conferences	Conclaves	ICT Academy - Sky Campus Digital Knowledge Webinar Sessions	Total Participants
Bringing Industry and Academia Closer	69	176	53	338630

Suggestions of the Study

1. Expand ICT Academy programs to rural/underserved areas for inclusive skill & digital literacy growth.
2. Strengthen industry ties for practical training, internships, and placements.
3. Add advanced courses (AI, IoT, data analytics) to keep faculty & students industry-ready.
4. Collect regular participant feedback to refine program content and delivery.
5. Promote academia-industry-government research collaborations for innovation.
6. Integrate soft skills, leadership, and entrepreneurship with technical training for holistic development.

Conclusion

ICT Academy has significantly transformed education, skill development, and digital empowerment in Tamil Nadu through its initiatives in faculty development, skill training, entrepreneurship, youth empowerment, research, digital literacy, and industry-institute interaction. These efforts have produced employment-ready graduates, innovative entrepreneurs, and digitally empowered citizens while bridging academia-industry gaps and strengthening institutional capabilities. By supporting the state’s vision of a knowledge-driven, digitally skilled workforce, continuous expansion, innovation, and collaboration can further amplify its sustainable impact on education and employment outcomes.



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