



INFORMATION TECHNOLOGY AND DIGITAL SERVICES DEPARTMENT

POLICY NOTE 2024-2025

DEMAND NO.31

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**Minister for Information Technology and
Digital Services**

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Government of Tamil Nadu
2024

**INFORMATION TECHNOLOGY AND DIGITAL
SERVICES DEPARTMENT**

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CHAPTER-I

INTRODUCTION

ஞாலம் கருதினாங் கைகூடுங் காலம்
கருதி இடத்தாற் செயின்.

(குறள் 484)

**Desire the world, you may, and it will
be yours, if, for your actions, you
choose the right time and place.**

Information Technology (IT) and Information Technology Enabled Services (ITeS) are present in every walk of our life and society. Health, Education, Governance, Manufacturing, Transport, Telecommunication, any type of production and almost all conceivable activities have a component of IT and ITeS. They have become a quintessential part of every organization today. Therefore, IT and ITeS have become important drivers of the economy as well as big employment creators.

Tamil Nadu is among the top States in the country in the IT and ITeS Sector. The State has been implementing several initiatives to boost growth of the sector and formulated various policies which catalysed remarkable progress, creating a conducive environment for innovation and expansion. Backed by a robust industrial foundation, cutting-edge IT infrastructure, well-developed telecom network and high tele-density, seamless connectivity, ample power supply, renowned healthcare facilities, prestigious educational institutions, and a skilled workforce, Tamil Nadu today has solidified its position as a premier destination for Information Technology-related activities.

The IT/ITeS industry has been one of the key driving forces fuelling the State's economic growth. Industry has transformed the State's image on the global arena. The State has also emerged as a **"SaaS Capital"** and IT/ITeS

Powerhouse. The State boasts balanced regional development, with several global IT majors increasingly opting for Tier-2 cities like Coimbatore and Madurai to establish their operations. The State has robust infrastructure, and is home to several IT Parks offering quality IT office spaces in Chennai as well as in Tier-II and Tier-III locations.

The state-of-the-art Tamil Nadu State Data Centre (TNSDC), Disaster Recovery Centre (DRC), Cloud computing facilities (TNCloud), e-Sevai Centres, etc. enhances citizen access to online Government services.

To encourage the Animation and Gaming Industry in the State, a separate policy is being formulated to incentivise investment in the Sector.

A mature, efficient R&D ecosystem is created in the State to handle sophisticated

technologies and arrive at solutions for complex problems. The State is increasingly home to Data Centres and Global Capability Centres (GCC). These are transforming the State into a “Knowledge Economy”.

With the large-scale use of Information and Communication Technologies (ICT) in every aspect of governance, expectations of better governance have also increased among public.

The Information Technology and Digital Services Department, through the Electronics Corporation of Tamil Nadu (ELCOT), has been in the forefront of IT promotion, procurement of IT products and services and establishing state-of-the-art IT infrastructure.

ELCOT's growth strategy is built around the main objective of creating new IT parks with world-class IT infrastructure across the State. With the establishment of 8 ELCOT Special

Economic Zones (ELCOSEZs) in Chennai and Tier-II cities - Coimbatore, Madurai (2 sites), Tiruchirappalli, Salem, Tirunelveli and Hosur, employment opportunities in the rural areas have increased manifold, thereby generating more jobs and promoting IT investments.

The formulation of Tamil Nadu Telecom Infrastructure Policy to grant Right-of-Way permissions to the Telecom Service Provider/Infrastructure Provider (TSP/IP) and Tamil Nadu Data Centre Policy to attract investments in Data Centre, creation of Centre of Excellence in Fintech and Startup Warehouse, participation in various National and International events and road shows, promotion of Startups, skill development through ICT Academy of Tamil Nadu, etc., are giving a further fillip to IT promotion in Tamil Nadu.

Tamil Nadu has been a pioneer in e-Governance in providing several citizen-centric

services online. There is a paradigm shift in the way Government has been using the tools of Information Communication Technology (ICT) for bringing-in efficiency in the Government process and for providing efficient services to our Citizens at their doorsteps.

The end-to-end computerization of Government processes helps the public to receive services through Arasu e-Sevai Centres or on their desktops / smart phones. Tamil Nadu Digital Transformation Strategy (DiTN) is in place to enable Government Departments to digitalize their operations with a vision to provide transparent and Citizen-Centric Governance.

Further, implementation of paperless office (e-Office) application within the Government offices is resulting in transparency and speedy disposal of files, leading to improved efficiency in decision making. Also, real-time online

monitoring of various schemes has now become easier by creating dashboards to help decision making at higher levels of administration.

A unified record of citizens of Tamil Nadu, the State Family Database (SFDB) is being created by integration and unification of different departmental databases. SFDB will act as a data integration and exchange platform for planning and monitoring of Government schemes and programmes.

Phase-I of Blockchain Backbone Infrastructure (Nambikkai Inayam) has been created at Tamil Nadu e-Governance Agency (TNeGA) to function as a single source of truth and trust anchor for government processes and government data.

While the tools of ICT bring huge benefits to governance and society, it also has its own pitfalls. Hence, e-Governance and e-Security

should go together. The Government of Tamil Nadu has taken a huge step towards ensuring e-security of government transactions by creating a Cyber Security Architecture for Tamil Nadu (CSA-TN).

By setting up the Centre of Excellence in Emerging Technologies (CEET), TNeGA has taken a huge step forward by taking advantage of the Emerging Technologies like Block Chain, Artificial Intelligence, Machine Learning, Internet of Things, Drones, Augmented Reality, Virtual Reality, Data Analytics, Geographic Information System (GIS), etc. TNeGA is instrumental in providing technical consulting services to design and develop e-Governance software for enabling digital services delivery channel for various departments.

To facilitate innovation-led entrepreneurship as an enabler for contributing to the economy of the State and to build a

thriving global innovation ecosystem by strengthening the Research, Development & Innovation landscape, industry – academia collaboration and international partnerships, the “Tamil Nadu Technology Hub (iTNT Hub)” has been established in Chennai. iTNT Hub aims at moving ideas & innovations to groundbreaking startups. It has been planned to expand iTNT Hub into Tier-2 and Tier-3 cities.

The Global technology summit, “UMAGINE TN 2024” conducted by the Information Technology & Digital Services Department in February 2024 in Chennai showcased the focus areas of the Government such as Artificial Intelligence (AI), Deep Tech, Cyber Security, Connected Intelligence, Sustainability, Global Innovation Centre (GICs) and Animation, Visual Effects, Gaming & Comics and Extended Reality (AVGC –XR).

The ICT Academy of Tamil Nadu has been conducting various skill development programmes for the students to increase their employability.

The implementation of “BharatNet” project by Tamil Nadu FibreNet Corporation (TANFINET) is in the final stages to connect all the 12,525 Gram Panchayats with Optical Fibre Cable to provide 1 Gbps bandwidth connectivity. A Unified Digital Infrastructure (UDI) project envisages addressing the connectivity requirement of Government Departments & Households in both rural and urban areas at an affordable cost.

Tamil Virtual Academy (TVA) has been in forefront of taking Tamil teaching and learning outside the State of Tamil Nadu, as well as outside India. In recent years, TVA has taken many initiatives to fulfil its objectives by utilising the technology available.

CHAPTER-II

**ELECTRONICS CORPORATION OF
TAMIL NADU LIMITED (ELCOT)**

1. Introduction

Electronics Corporation of Tamil Nadu Limited (ELCOT) is a wholly owned Public Sector Undertaking of the Government of Tamil Nadu established on 21.03.1977.

With the robust vision to assist the Government in positioning Tamil Nadu as an e-Enabled state, ELCOT focuses on four main pillars of operation: IT Promotion and Development, IT Procurement, IT Infrastructure and Data Centre Services and Telecom Infrastructure regulation services. ELCOT actively promotes Tamil Nadu as the favourable destination for IT businesses through its ELCOSEZ and IT parks and thus fostering growth in the sector. ELCOT also aids the procurement

of IT products for various departments under the Government of Tamil Nadu, ensuring efficiency and reliability in government operations. To cater to the needs of Government Departments, ELCOT provide essential data centre services, ensuring secure and reliable data management.

2. IT Promotion and Development

ELCOT plays a major role in making Tamil Nadu as a preferred destination of choice for Information Technology (IT) and Information Technology Enabled Services (ITeS) companies. ELCOT's growth strategy is built around the main objectives such as creating new IT parks with world-class IT infrastructure across Tamil Nadu, promoting IT investments and developing skills.

ELCOT established 8 Special Economic Zones (SEZs) in Chennai and Tier-II cities viz. Coimbatore, Madurai (2 sites), Tiruchirappalli, Salem, Tirunelveli and Hosur with a total extent

of 1288.03 acres (1231.48 acres of SEZ and 56.55 acres of Non-SEZ) at an investment of Rs.852.46 crore.

To promote Tamil Nadu as a preferred destination for IT and ITeS investments, ELCOT conducted/participated in the following events:

- "NASSCOM future of work" held on 14th September 2023 in Chennai.
- "CONNECT – Madurai" held on 29th September 2023 in Madurai.
- "CONNECT – Chennai" held on 21st to 22nd November 2023 in Chennai.
- "UMAGINE TN 2024" held on 23rd to 24th February 2024 in Chennai.

UMAGINE TN 2024

"INFORM. INSPIRE. INNOVATE"

ELCOT successfully conducted "UMAGINE TN 2024", a Technological and Innovation summit, and the most anticipated technological event of the year held in Tamil Nadu. The event

was organised on 23rd and 24th February 2024 along with M/s.Confederation of Indian Industry as Industry Partner. The 2nd edition of "UMAGINE TN 2024" event was a grand success with 24,482 registrations. Spread over two days, the summit featured keynotes, fireside chats and panel discussions along with Investment pitches, Product showcases and Technology showcases with focus on Artificial Intelligence (AI) & Deep tech, Cyber security, Connected Intelligence, Sustainability, Global Innovation Centre (GICs) and Animation, Visual Effects, Gaming & Comics and Extended Reality (AVGC -XR). Total foot fall for the event was around 24,000.

"UMAGINE TN 2024" consisted of 60+ sessions and 165 speakers delivered excellent speeches on variety of topics that attracted 20,000+ visitors across two days from Industries, Academia and Tech Enthusiasts.

The exhibition was also a grand one, showcasing the success of the State in IT/ITeS Sector. This tech showcase featured an array of innovative products, services and solutions from leading Companies and Startups in various sectors. Attendees had the chance to witness the latest advancements in technology for transforming industries and shaping the future, enabling them to gain valuable insights and inspiration for their own organizations and initiatives. Further, the Information Technology and Digital Services Department showcased a separate stall as "TN IT pavilion" to present the various projects handled by the Department. Metaverse Setup, Showcasing 3 IT Tower Miniature Models (Chennai-Sholingallur, Coimbatore-Vilankurichi and Trichy-Navalpattu) and Video Presentation of all ELCOSEZs and other projects of ELCOT were presented.

TNeGA showcased live eKYC verification of college students, Cataract detection using AI-based App and TNGIS App with live features. Video Presentation about TACTV and TANFINET Services with Miniature were also displayed. Presentation and Videos of ICT academy services, Human Interest Stories, CSR Initiatives and Skill Development Initiatives were also displayed. Immersive and Gaming experience, working model prototype of space debris removal were displayed by iTNT Hub. Also, dedicated Deep tech & Emerging tech startup arena were showcased.

2.1 ELCOT Special Economic Zones (ELCOSEZs)

2.1.1 ELCOSEZ-Sholingallur, Chennai

ELCOT set up an ELCOSEZ on 377.08 acres of land at a cost of Rs.258.56 crore by creating necessary common infrastructure and an Administrative building.

ELCOT has leased out the land to the following Companies:

Sl. No.	Company	Land (in acres)
1.	M/s. Wipro Ltd.	80
2.	M/s.HCL Technologies Pvt. Ltd.	50
3.	M/s. Tech Mahindra Pvt. Ltd.	50
4.	M/s .Ford Motors Pvt. Ltd.	28
5.	M/s. Cognizant Technologies Solution Pvt. Ltd.	20
6.	M/s. Sutherland Global Services Ltd.	15

The above companies have established their facilities in a built-up space of 124.55 lakh sq.ft. The above companies are engaged in Software Development, Maintenance and Testing, Consulting and Business Process

Outsourcing domains. About 74,115 employment opportunities have been created.

In addition to the above, in-principle allotment letter has been issued to M/s. Royal Enfield for 4.73 acres.

An Information Technology Tower of about 2.33 lakh sq.ft. is being constructed at an estimated cost of Rs.88.21 crore to meet the growing demand of quality IT space for IT/ITeS companies in Chennai.

2.1.2 ELCOSEZ-Vilankurichi, Coimbatore

ELCOT established an ELCOSEZ on 61.59 acres of land at a cost of Rs.217.46 crore by creating necessary common infrastructure and constructing an Administrative building.

ELCOT has leased out the land to the following Companies:

Sl. No.	Company	Land (in acres)
1	M/s. WIPRO Ltd.	9.5
2	M/s. Tidel Park Coimbatore Ltd.	9.5
3	M/s. Access HealthCare Services Pvt. Ltd.	2

The above companies have established their facilities in a built-up space of 23 lakh sq.ft. About 22,900 employment opportunities have been created.

An Information Technology Tower of about 2.66 lakh sq.ft. is being constructed at an estimated cost of Rs.114.16 crore to meet the growing demand of quality IT space for IT/ITeS companies in Coimbatore.

2.1.3 ELCOSEZ-Madurai

2.1.3.1 ELCOSEZ-Ilandhaikulam, Madurai

ELCOT set up an ELCOSEZ on 28.91 acres of land at a cost of Rs.34 crore by creating necessary common infrastructure and constructing an Administrative-cum-IT building measuring 60,652 sq.ft.

ELCOT has allotted land on lease basis to the following Companies:

Sl. No.	Company	Land (in acres)
1	M/s.Honeywell Technologies Ltd.	11.25
2	M/s.HCL Technologies Ltd.	6.75
3	M/s. Chella Software Pvt. Ltd.	2.25
4	M/s. Rebar Design & Details Pvt. Ltd.	0.15

The above companies have established their facilities in a built-up space of 7.22 lakh sq.ft.

In addition to the above, an extent of 0.19 acres of land has been allotted on lease basis to M/s. Rebar Design & Detail Pvt. Ltd.

In the Administrative-cum-IT building, space has been allotted to the following companies:

Sl. No.	Company	Space (in sq.ft)
1.	M/s. Neeyamo Enterprises Solutions Pvt. Ltd.	30,103
2.	M/s. SBL Knowledge Services Ltd.	15,180
3.	M/s. Profizio IT Solutions Pvt. Ltd.	9,136
4.	M/s. Rebar Design & Detail Pvt.Ltd.	3,725

In addition to the above, in-principle allotment letter has been issued to M/s. Rebar Design & Detail Pvt. Ltd. for about 2,508 sq.ft.

The above companies are engaged in Consulting, Application Development, Business Process Outsourcing, Digitisation of data domains and about 8,433 employment opportunities have been created.

2.1.3.2 ELCOSEZ–Vadapalanji, Madurai

ELCOT has established an ELCOSEZ on 245.17 acres of land (213 acres of SEZ and 32.17 acres of Non-SEZ) at a cost of Rs.70 crore by creating necessary common infrastructure and constructing an Administrative-cum-IT building measuring 70,139 sq.ft.

ELCOT has leased out the land to the following Companies:

Sl. No.	Company	Land (in acres)
1	M/s.Pinnacle Infotech Solutions Pvt. Ltd.	34.09
2	M/s.Chain-sys Software Exports Pvt. Ltd.	20

3	M/s.Dew Info-Systems Pvt. Ltd.	10.19
4	M/s. Optisol Business Solution Pvt. Ltd.	8.25
5	M/s. Access HealthCare Services Pvt. Ltd.	4.01
6	M/s.Global Associates	4
7	M/s.Osiz Technologies Pvt. Ltd.	3.53
8	M/s. Sashma Global Pvt.Ltd.	1.5

In addition to the above, land has been allotted on lease basis to the following companies:

Sl. No.	Company	Land (in acres)
1	M/s. Shriman Technologies Pvt. Ltd.	4.00
2	M/s. Cloud Vantage Solutions Pvt. Ltd.	3.16

In the Administrative-cum-IT building, space has been allotted to the following companies:

Sl. No.	Company	Space (in sq.ft)
1	M/s. Neeyamo Enterprise Solutions Pvt. Ltd.	17,670
2	M/s. Chain-sys Software Exports Pvt. Ltd.	5,814
3	M/s. Neeyamo Works Technologies Pvt. Ltd.	5,814

In addition to the above, in-principle allotment letter has been issued to M/s. Techno Genesis Software Solutions Pvt. Ltd. for about 3,508 sq.ft.

The above companies are engaged in Consulting, Payroll Processing and Digitisation of data domains. About 2,036 employment opportunities have been created.

2.1.4 ELCOSEZ-Navalpattu, Tiruchirappalli

ELCOT established an ELCOSEZ on a land extent of 147.61 acres with an investment of Rs.88.44 crore by creating necessary common

infrastructure and constructing an Administrative-cum-IT building measuring 59,960 sq.ft.

ELCOT has allotted land on lease basis to the following companies:

Sl. No.	Company	Land (in acres)
1	M/s. Esskay Design and Structures Pvt. Ltd.	3
2	M/s. iLink Multitech Solutions Pvt. Ltd.	2

In addition to the above, in-principle allotment letter has been issued to M/s. Ampturn Electrical Products Pvt. Ltd. for about 9 acres.

In the Administrative-cum-IT building, space has been allotted to the following companies:

Sl. No.	Company	Space (in sq.ft)
1.	M/s. SPI Technologies India Private Limited-II	17,300
2.	M/s. SPI Technologies India Private Limited-I	12,950
3.	M/s. iLink System Pvt. Ltd.	6,668
4.	M/s. Vuram Technology Solutions Pvt. Ltd.	5,976
5.	Tamil Nadu Disaster Recovery Centre (TNDRC)	5,963
6.	M/s.GI Tech Gaming Co. India Pvt. Ltd.	4,919
7.	M/s. VDart Technologies	3,643
8.	M/s. VR Della IT Services Pvt. Ltd.	2,541

The above companies are engaged in e-Publishing, Software Development, Business Process Management services and solutions and Gaming software development domains. About

1,380 employment opportunities have been created.

In order to meet the growing demand for quality IT space by IT/ITeS companies at Tiruchirappalli, an Information Technology Tower of about 1.16 lakh sq.ft. has been constructed at a cost of Rs.59.57 crore and was inaugurated by the Hon'ble Chief Minister on 17.02.2024.

2.1.5 ELCOSEZ-Gangaikondan, Tirunelveli

ELCOT established an ELCOSEZ on a land extent of 199.87 acres with an investment of Rs.55 crore by creating necessary common infrastructure and constructing an Administrative-cum-IT building measuring 57,107 sq.ft.

ELCOT has allotted land on lease basis to the following Companies:

Sl. No.	Company	Land (in acres)
1	M/s. Syntel International Pvt. Ltd.	100
2	M/s.Fishin India Pvt. Ltd.	33.57
3	M/s.Ranger Technologies Pvt.Ltd.	1

M/s. Syntel has established their facility in a built-up space of 2.60 lakh sq.ft.

In the Administrative-cum-IT building, space has been allotted to the following Companies:

Sl. No.	Company	Space (in sq.ft)
1	M/s. Caliber Interconnect Solutions Pvt. Ltd.	5994
2	M/s. Novigo Partners Pvt. Ltd.	3470
3	M/s. Silicon Oasis Pvt. Ltd.	2965

In addition to the above, in-principle allotment letter has been issued to M/s. A2000 Solutions Pvt. Ltd. for 34,844 sq.ft., about 970 employment opportunities have been created.

2.1.6 ELCOSEZ-Jagirammalayam, Salem

ELCOT established an ELCOSEZ on a land extent of 53.33 acres with an investment of Rs.44 crore, by creating necessary common infrastructure and constructing an Administrative-cum-IT building measuring 62,174 sq.ft.

ELCOT has allotted land on lease basis to the following companies:

Sl. No.	Company	Land (in acres)
1	M/s.Vee Technologies Pvt. Ltd.	9.49
2	M/s. Nuratech Consultancy Services Pvt. Ltd.	6.877

3	M/s.Mahima Technologies Pvt. Ltd.	3.003
4	M/s.Anmol Technologies Pvt. Ltd.	1
5	M/s.Focus R Consultancy and Technologies Pvt. Ltd.	1

In addition to the above, in-principle allotment letter has been issued to the following companies:

Sl. No.	Company	Land (in acres)
1	M/s.Sundar Sons Exports	2.64
2	M/s.Nobl Q Technologies	2.5

In the Administrative-cum-IT building, space has been allotted to the following companies:

Sl. No.	Company	Space (in sq.ft)
1	M/s. Vee Technologies Pvt. Ltd.	21,124

2	M/s.Zealous Services	13,743
3	M/s. Vee Imaging Solutions Pvt. Ltd.	10,562
4	M/s. Reveille Technologies Pvt. Ltd.	3,704
5	M/s. Proultima Engineering Solution Pvt Ltd	3,704
6	M/s. Mahima Technology Pvt. Ltd.	3,359
7	M/s. E-Mudhra Ltd.	2,989
8	M/s. Dilogy Solutions Pvt. Ltd.	1,000
9	M/s. Stin Soft Technologies Pvt. Ltd.	989

About 2,600 employment opportunities have been created.

2.1.7 ELCOSEZ-Viswanathapuram, Hosur

ELCOT established an ELCOSEZ at a land extent of 174.47 acres with an investment of Rs.85 crore by creating necessary common

infrastructure and constructed an Administrative-cum-IT Building measuring 62,100 sq.ft.

ELCOT has allotted 12.04 acres of land on lease basis to M/s. IAMPL.

In addition to the above, in-principle allotment letter has been issued to the following companies:

Sl. No.	Company	Land (in acres)
1	M/s. Ascent Circuits Private Limited	12.37
2	M/s.Paloma Turning Co. Pvt. Ltd.	10
3	M/s.Rapid Global business India Pvt. Ltd.	3.93
4	M/s.HICAL Technologies Pvt. Ltd.	3.92
5	M/s.Acube Tech Solutions India Pvt. Ltd.	1.94
6	M/s.Universal Conveyors	1.86

In the Administrative-cum-IT building, space has been allotted to the following companies:

Sl. No.	Company	Space (in sq.ft)
1	M/s.US Technology International Pvt. Ltd.	21,100
2	M/s. Chandu Soft Technologies Pvt. Ltd. – I,II	10,550
3	M/s. JLK Automation India Pvt. Ltd.	9,950
4	M/s. Process Drive India Pvt. Ltd.	7,089
5	M/s. Diggibyte Technologies Pvt. Ltd.	6,961
6	M/s. Screen Artz	3,461
7	M/s. Thendral Infotech	1,000

About 600 employment opportunities have been created.

3. IT-INFRASTRUCTURE

3.1 Tamil Nadu State Data Centre

3.1.1 Tamil Nadu State Data Centre-I (TNSDC-I)

During the year 2011, Government of Tamil Nadu implemented the first ISO certified Data Centre in the country. TNSDC-I is operational with a capacity of about 62 racks. The budgetary cost was Rs.138 crore.

3.1.2 Tamil Nadu State Data Centre- II (TNSDC-II)

As TNSDC-I was almost completely utilised, TNSDC-II, the second phase of TNSDC, was established and is operational from 2020 at a budgetary cost of Rs.74.7 crore. The TNSDC-II can accommodate 135 racks and its modular design supports seamless scale up.

More than 382 applications/ services, including major applications such as e-Office, IFHRMS, STAR 2.0(IGR), CCTNS and Aavin are

currently hosted in TNSDC-I, TNSDC-II and Cloud (ThamizhMegam).

3.2 Tamil Nadu Disaster Recovery Centre(TNDRC)

The Tamil Nadu Disaster Recovery Centre (TNDRC) was established at ELCOSEZ, Tiruchirappalli and has been operational since 2018. This provides business continuity for various critical e-Governance applications hosted in TNSDC in the event of any break down or disaster.

3.3 ThamizhMegam-TN Cloud Computing Services

The State Cloud Infrastructure, trademarked as 'ThamizhMegam', enables optimal sharing of system resources with minimal management. It has been operational since 2016 at a project value of Rs.29.46 crore.

At ThamizhMegam, Infrastructure-as-a-Service (IaaS) and Platform-as-a-Service (PaaS) are being offered and 282 applications / services have been hosted.

3.4 Cyber Security Architecture for Tamil Nadu (CSA-TN)

Cyber Security Architecture for Tamil Nadu (CSA-TN) has been established to counter cyber-attacks in collaboration with the Centre for Development of Advanced Computing (C-DAC), Chennai, at a cost of Rs.21.39 crore.

The three pillars of Information Security Management System (ISMS), namely, People, Process and Technology are strengthened as below:

People

- Departments are assigned with a Chief Information Security Officer (CISO)/Information Security Officer (ISO)

for the department employees to reach out to in case of any cyber-related issues/threats. The CISOs/ISOs are given periodical training on Cyber Security awareness.

- Online/ Offline trainings on how to secure the assets and report incidents are conducted across Tamil Nadu to educate the department officials.
- Cyber Security Incident Response Team (CSIRT), a trained pool of experts on Cyber Security, is available for prompt response and recovery in case of any cyber incident.

Process

- The National Institute of Standards and Technology (NIST) Cyber Security Framework is a set of guidelines and best practices to help organizations build and improve their cyber security posture with 5

main functions, namely, identify, protect, detect, respond and recover. CSA-TN is one of the pioneers in implementing NIST framework for State-wide Cyber Security.

- The Helpdesk Team of CSA-TN supports departments with rescue activities in case of defacing/hacking/breaching using quicker and reliable channels to detect, respond to and recover from cyber incidents.
- The Cyber Crisis Management Plan (CCMP) for cyber resilience defines how an organization should respond to a cyber-incident and mitigate the same. The State's Cyber Crisis Management Plan (CCMP) document has been reviewed and finalised by CERT-In.

Technology

- Management and monitoring of around 1200 critical assets across the State on the SOC platform.
- Establishment of Security Operation Centre – Tamil Nadu (SOC-TN) with required infrastructure.
- 20+ online training programmes for the State officials with customised training modules as per their working domain.
- NIST Cyber Security Framework, the International Cyber Security standard, is being followed for the Cyber Security activities of CSA-TN and is being audited by STQC, Chennai.
- Suspicious IPs found by CSA-TN are reported to the Data Centre Operator and 51,535 IPs have been blocked so far.

3.5 Migration of TNSWAN connectivity to TANFINET

TNSWAN connectivity was operational from 01.12.2007 to 13.11.2023. As per the directions of the Government, TNSWAN connectivity has been handed over to TANFINET.

3.6 Public Free Wi-Fi

As Phase-1, it was decided to implement 1000 WiFi Access points in Chennai at Beaches, Bus Terminus, Bus Shelters, Parks and Government Hospitals in the locations wherever EB power is readily available.

Hon'ble Chief Minister inaugurated the Free WiFi programme on 23.02.2024 for public use with 500 Access Points in Chennai.

As on date, 850 Free WiFi access points have been completed in Chennai.

4. TELECOM DIVISION

4.1 RIGHT OF WAY PERMISSIONS

Telecom Division facilitates grant of Right-of-Way permissions for establishing New Telecom Infrastructure (Underground and Overground) in a time-bound manner.

The Government of Tamil Nadu has formulated and released Tamil Nadu Telecom Infrastructure Policy, 2022 vide G.O (Ms.) No.4, Information Technology (E1) Department, dated 25.01.2022. As per the direction of Government, ELCOT has implemented an online single window portal (<https://row.tn.gov.in>) to grant permissions to the Telecom Service Provider/Infrastructure Provider (TSP/IP).

Government have designated the Managing Director, ELCOT as the Grievance Redressal Officer vide G.O.(Ms.) No.9, Information Technology & Digital Services (E1)

Department, dated 28.02.2023 to address the grievances of Telecom and Right-of-Way (RoW) portal related issues of Telecom Infrastructures for better monitoring.

As on date, 6085 permissions have been granted for establishment of New Telecom Infrastructure. The State of Tamil Nadu also handles the regularization of existing Telecom Infrastructure and so far, 31,632 have been regularised.

4.2 Permanent Enrolment Centres (PECs)

ELCOT is one of the agencies empanelled by the Unique Identification Authority of India (UIDAI) to execute Aadhaar Enrolment activities in the State with TNeGA as Registrar. ELCOT initiated the operation of Permanent Enrolment Centres (PECs) from October 2016 onwards. Currently, 262 PECs have been established at 36 District Collectorates, 18 Municipal Corporation Headquarters, 41 Municipal Zonal

offices, 117 Municipalities, 10 Town Panchayats, 2 Revenue Divisional Offices, 27 Block Development Offices, 4 Village Panchayats, 1 Special Township in Neyveli, 1 Treasury and Accounts, 3 MLA Offices and 2 Provident Fund offices.

Total transactions carried out till May 2024 stands at 1,15,52,817 numbers which includes 27,45,323 numbers of New Aadhaar Enrolment and 88,07,494 details updated (Demographic, Biometric and Mandatory) that have been delivered through these Permanent Enrolment Centres (PECs).

4.2.1 Aadhaar Activities in Educational Blocks under SamagraShiksha

ELCOT has been appointed as an Enrolment Agency by State Project Director, SamagraShiksha under School Education Department to carry out the Aadhaar related services to school students. In accordance,

starting from January 2022, ELCOT had established Aadhaar centres at 120 Educational Blocks and executed 1,29,140 new Aadhaar enrolment and 6,80,648 details updated on Aadhaar cards in these 120 centres. The total transaction count as of May 2024 is 8,09,788.

4.2.2 Aadhaar Enrolment at School Premises

In order to enable Students to avail their scholarships and other benefits, School Education Department (SED) proposed to provide Aadhaar Services at school premises as special initiative. Out of a total student population of 1 crore, SED has identified 34 lakh students in the age group of 5-7 years and 15-17 years for eligible to have the mandatory biometric details updated. For the remaining 66 lakh students in the age group of 8-14 years, details would be updated at Government

Schools, Government Aided Schools and Private Schools across Tamil Nādu.

Under the direction of School Education Department, which also serves as Registrar, ELCOT started Aadhaar registration on camp-mode at school premises on February 23, 2024. In the current year, Aadhaar Registration at School premises started on camp-mode in full swing from the School reopening day 10.06.2024 across all educational blocks by deploying 770 operators.

5. Procurement

Government of Tamil Nadu has nominated ELCOT as the Optional Procurement Agency for the procurement of IT Hardware products for Government Departments/ Corporations/ Autonomous bodies as per G.O. (Ms). No. 58, Finance (BPE) Department, dated 16.02.1999. ELCOT procures IT Hardware like Desktop, Server, Storage, Firewall, Printer, Copier,

Scanner, Laptop, Networking Components, UPS System, Battery, Display Monitor, TV, IP Camera etc. as a cost-effective solution. ELCOT floats tenders to procure IT Hardware Products as per Tamil Nadu Transparency in Tenders Act and Rules. Suppliers/Original Equipment Manufacturers (OEMs) offer competitive prices in view of the large volume of procurement done by ELCOT.

IT Hardware procurement is done through two modes of tenders: -

1. Rate Contract Tenders – ELCOT floats Rate Contract Tenders for the supply of items to various Government Departments at a fixed price throughout the year. ELCOT ensures better price and availability of the products in Rate Contract, by grouping the items that are commonly procured by the Departments.

2. Full Procurement Tenders - ELCOT undertakes a separate tender process when the specific requirements of Departments are not available in Rate Contract or the value of procurement is more than Rs. 10 Crore.

ELCOT has an "e-Procurement Portal" through which the Departments can generate Proforma Invoice, update details on fund transfer and make a request to supply the items. Subsequently, ELCOT issues Purchase Orders to suppliers through this portal. This portal has streamlined the transactions of the Government Departments with ELCOT with increased transparency and reduced the manual work.

The total value of procurement for the FY 2023-24 is Rs.460 Crore and the expected value of procurement for the FY 2024-25 is Rs.500 Crore.



IT Hardware procurement done by ELCOT for major Departments for the year 2023-24 is furnished below:

Sl. No.	Department Name	Procurement Value (Rs. in Crore)
1	Treasuries & Accounts	109
2	High Court and Subordinate Courts	93

3	Health and Family Welfare	60
4	Police	46
5	School Education	24
6	Municipal Administration & Water Supply	16
7	Registration	14
8	Agriculture	12
9	Higher Education	11
10	Other Departments	75
Total (Rs. in Crore)		460

Item-wise Hardware Procurement details for various products supplied during the year 2023-24 are furnished below.

Sl. No.	Item Description	Procurement Value (Rs. in Crore)
1.	Desktop	135
2.	Server, Storage, Firewall	50
3.	Printer, Copier, Scanner	47

4.	Laptop	30
5.	Networking Components	24
6.	UPS System, Battery	15
7.	Display Monitor, TV	15
8.	IP Camera	5
9.	Software License	87
10.	Forensic Tools	18
11.	Other IT Hardware	34
Total (Rs. in Crore)		460

ELCOT is also undertaking Digitisation work to cater to the requirements of Government Departments to digitize old records.

ELCOT arranges Video Conferencing equipment for various Government welfare schemes inaugurated by Honourable Chief Minister and for the review meetings at Secretariat. ELCOT also arranges CCTV (Closed Circuit Television) Surveillance Systems with accessories for monitoring the examinations

conducted by TNPSC and various Government Departments / Agencies.

ELCOT maintains the Secretariat Network (SECNET) and Surveillance System at Main Building and Namakkal Kavignar Maaligai, Secretariat on 24x7 basis. ELCOT also implements the scheme of Procurement & Supply of Laptops / Tablets to All India Service Officers.

CHAPTER-III

DIRECTORATE OF E-GOVERNANCE AND TAMIL NADU E-GOVERNANCE AGENCY

1. Introduction

Information Technology like Finance, Law and General Administration, is today one of the quintessential pillars of any organisation. So is the case with the Government. Information Technology and its tools today are reimagining and transforming the way Government engages with citizens, formulate policy, design interventions and measure their impact and outcomes.

To ensure that Tamil Nadu Government Departments are taken through this transformation in a smooth and purposive manner, the Directorate of e-Governance was established in 2006. An agile and solution-based

approach in operations was also needed in this Sector. Hence, the Tamil Nadu e-Governance Agency (TNeGA) was created during the year 2007 as a Society registered under the Tamil Nadu Societies Registration Act, 1975. TNeGA enhances the quality of life of Citizens by working with various Departments to efficiently deliver Government Services through ICT tools and create cost effective, scalable solutions for Governance by making full use of Emerging Technologies.

Currently, the Director, e-Governance functions as the ex-officio Chief Executive Officer of TNeGA.

2. Organisational Structure

2.1. Directorate of e-Governance and Tamil Nadu e-Governance Agency

The Government has restructured the Directorate of e-Governance and Tamil Nadu e-Governance Agency vide G.O. (Ms.) No.10,

Information Technology and Digital Services (B1) Department, dated: 10.03.2023. Both the Directorate of e-Governance and Tamil Nadu e-Governance Agency (TNeGA) are led by a team of Government Officers on deputation along with Senior Technical persons from the IT industry.

2.2. District e-Governance Societies (DeGS)

- i) The e-District pilot project was initiated in 2012, for delivering Citizen-centric services across the State of Tamil Nadu. This was taken forward with the e-Sevai project in 2015. The aim of both e-District and e-Sevai project is transparent, contactless, and accountable delivery of services to citizens at their doorsteps. To oversee the implementation of this project in districts and below, District e-Governance Societies (DeGS) have

been started in all districts. The Society is headed by the District Collector in all the Districts, except Chennai where it is headed by the Commissioner, Greater Chennai Corporation.

- ii) DeGS anchors all e-governance activities in the districts along with the flagship intervention of e-Sevai for All (EFA) and its operator network of 26,311 EFA operators. DeGS gets a 10% revenue share from the e-Sevai operations with effect from 01.03.2023 to sustain its operations.
- iii) In the Year 2023 – 2024, DeGS has been involved in implementation of various schemes such as e-Office, Makkaludan Mudhalvar, Kalaignar Magalir Urimai Thittam, etc.

3. Tamil Nadu Digital Transformation Strategy (DiTN)

Information Technology and Digital Services Department aims to enable Government Departments to digitalize their operations with a vision to provide transparent and Citizen-Centric Governance. The Tamil Nadu Digital Transformation Strategy document was released by Hon'ble Chief Minister on 02.11.2023.

Tamil Nadu Digital Transformation Strategy (DiTN) helps the Departments to achieve their Key Performance Indicators (KPIs) and outcomes and provide SMART (Swift, Monitorable, Accessible, Responsive and Transparent) Governance to citizens of Tamil Nadu. DiTN strategy provides guidance from assessment of digital maturity to execution of the IT Strategy.

3.1. IT Assessment Portal

IT Assessment Portal is developed by TNeGA as part of the e-Governance initiative to introduce a measure of e-Governance maturity. The portal captures the IT infrastructures available in the Government Departments to measure e-Governance maturity in four focus areas:

- supporting core Government systems
- enhancing service delivery
- mainstreaming citizen engagement
- fostering Governance enablers

To effectively utilize the data captured in the e-Governance IT Assessment Portal, an action plan has been formulated. This plan focuses on a meticulous assessment of information provided by Heads of Departments (254 HODs) in key categories:

Assessment Categories:

1. Project Information Profile
2. Organization IT Profile
3. Electronic Service Delivery (ESD)

This assessment seeks to offer valuable insights and strategic suggestions to improve the e-Governance DiTN Strategy continuously.

TNeGA conducted training and workshops for IT Assessment Portal to Head of Departments (HODs) in two phases in the year 2023 – 24.

Phase	Session	Month	Status
Phase-I	Training	June 2023	Completed
Phase-II	Workshops	August to September 2023	Completed

Analysis on the data entered in the IT Assessment Portal by the Department is based on six critical parameters (Application Hosting details, Security Audit/ SSL duration details, IT Cadre/PMU details, IT Assets, AMC contract duration details, ESD Services and External Integrations), and Observations and Recommendations were proposed to 200 Head of Departments (HODs).

3.2. Delivery of G2C Services

a). Service Centre Agencies

G2C Services are provided electronically through Common Service Centres to deliver services near the doorsteps. The e-Sevai centres are run by Service Centre Agencies (SCA) such as - PACCS (Primary Agricultural Cooperative Credit Society), TACTV (Tamil Nadu Arasu Cable TV Corporation), VPRC (Village Poverty Reduction Committee), FSH (Fisheries Department), CHS (Co-Operative Housing

Societies), Member of the Legislative Assembly Offices, EFA (e-Sevai For All) and MIS (Miscellaneous Cantonment Board) to deliver Government services to the public near their home.

b). e-Sevai Centres

As on 13.06.2024, 32,908 e-Sevai Centres are present across the State of Tamil Nadu.

SCA Wise e-Sevai Centres count

S.No	Agency	Total e-Sevai Centres
1	PACCS (Primary Agricultural Cooperative Credit Society)	3,877
2	TACTV (Tamil Nadu Arasu Cable TV Corporation)	744
3	VPRC (Village Poverty Reduction Committee)	1,742
4	FSH (Fisheries Department)	69
5	CHS (Co-Operative Housing Societies)	40

6	MLA (Member of the Legislative Assembly) Offices	80
7	EFA (e-Sevai For All)	26,311
8	MIS (Miscellaneous Cantonment Board)	3
9	MSTM (Mathi Siragugal Thozhil Mayyam) (VKP)	42
Total (Active e-Sevai Centres)		32,908

c) G2C services and B2C services

At present, 404 services of various Departments are offered under e-Sevai services. In the last financial year, **167 new** services (**17 G2C services and 150 B2C services**) of various Departments were added to e-Sevai portal.

Newly Added Services

Department/Service	Service Count
School Education(G2C)	9
Finance Department(G2C)	1

Transport Department(G2C)	3
Chennai Metropolitan Water Supply and Sewerage Board (G2C)	1
Special Programme Implementation (G2C)	3
B2C	150
Total	167

d). e-Sevai for all (EFA)

“The e-Sevai For All” initiative was inaugurated on March 15, 2023 with the primary aim of facilitating the establishment of e-Sevai Centres, thus empowering entrepreneurs to establish EFA centres in every village, ward and habitation. The initiative's objective is to enhance accessibility to e-Sevai services across diverse communities.

TNeGA has issued 26,311 (Rural:10,457 and Urban:15,854) e-Sevai Ids under “e-Sevai

for all” initiative across the State of Tamil Nadu. This initiative also provides entrepreneurship opportunities and economic benefits in rural areas.

Training has been imparted to entrepreneurs in their own districts. Notably, EFA transactions accounted for 53% of the total transactions during the year 2023.

**Agency wise - Transaction details:
Jan – Dec 2023**

Agency	Count	Transaction	"%"
EFA	26,311	51,98,076	53%
PACCS	3,877	19,23,323	20%
TACTV	744	20,00,119	21%
VPRC	1,742	5,59,501	6%
FSH	69	26,331	0.3%
TNASSEMBLY	80	15,463	0.2%
CHS	40	1,380	0.01%

MIS	3	246	0.00%
MSTM (VKP)	42*	0	0.00%
Grand Total	32,908	97,24,439	100%

*MSTM Centres are newly added

e). Grievance Redressal

Utilizing the toll-free number 18004256000, this centralised system serves to streamline the resolution of issues and improve service quality based on the feedback received. TNeGA has resolved 1,55,148 calls received both from the operators and citizens regarding e-Sevai centres and their services, from May 2023 to April 2024.

f). Third Party Auditing (TPA)

The primary objective of Third-Party Auditing of the EFA centres is to conduct an impartial audit. TPA will verify operator compliance with regulations and enhance the

effectiveness of e-Sevai centre operations. Assessment of TN e-Sevai centres was initiated from 18.10.2023 for auditing 26,311 operators. As on 13.06.2024, TPA has completed the audit of 13,509 EFA operators.

g). Training for EFA operators

An MoU has been signed by TNeGA with M/s. ICT Academy on 22.06.2023 for the skilling, training, and capacity building for e-governance initiatives. Training of 26,311 e-Sevai EFA operators was conducted by M/s. ICT Academy from 17th August 2023 to 6th October 2023 throughout the State.

3.3 University Management Information System (UMIS)

The University Management Information System (UMIS) functions as a common single platform for collecting details of all the institutions and students in Tamil Nadu. The primary objective of the common portal is to

provide a single window platform for all institutions under different Departments and to serve as a comprehensive platform that integrates data, automates processes and provides analytical capabilities to support the diverse needs of Higher Education.

UMIS also acts as a Decision Support System and helps the Department officials to make data-driven decisions through reports, analytics, dashboards, etc. The student data will be authenticated with other interfaces like EMIS, NPCI, Aadhaar, e-Sevai, etc.. This common portal has also been integrated with other platforms like scholarship portals to share information. Data from the portal is now being used in a paper-less manner for Pudhumai Penn and Tamizh Puthalvan scholarships.

As on 10.06.2024, a total of 4720 institutions in 75 universities have been

onboarded and 27,53,863 students' data have been approved in UMIS application.

3.4 State Scholarship Portal

The State Scholarship Portal is a transformative initiative designed to elevate the socio-economic status of students from diverse community backgrounds, including Adi Dravidar, Tribal, Backward Class (BC), Most Backward Class (MBC), and Denotified (DNC) communities. The scholarship portal serves as a centralised platform where eligible students can apply for a range of scholarships offered by various Government Departments and agencies. The objective of the scholarship portal is to enhance the efficiency of the student application process by integrating databases like UMIS, e-Sevai, Aadhaar, National Payment Corporation of India (NPCI) and Direct Benefit Transfer (DBT). This integration will eliminate manual data entry leading to quicker processing and direct

disbursement of scholarship into beneficiaries' accounts.

This scholarship portal facilitates easy enrolment for the scholarship. The portal encompasses both state and central welfare schemes for school and college students.

Scholarship Schemes Onboarded in Tamil Nadu State Scholarship Portal		Scholarship Schemes Planned for 2024 - 25	
Total No. of Departments	Total No. of Scholarship Scheme	Total No. of Department	Total No. of Scholarship Schemes
3	26	10	25

Details of disbursement of scholarship for the year 2023-24:

S.NO	Department	Total No. of Beneficiaries	Disbursed Amount (Rs.in Crore)
For College Student Scholarship			
1	Adi Dravidar Welfare Department	3,71,499	498.47
2	Tribal Welfare Department	11,235	34.18
3	BC,MBC,DNC Department	2,71,258	130.01
Sub Total (a)		6,53,992	662.66
For School Student Scholarship			
1	Adi Dravidar Welfare Department	7,37,544	88.83
2	Tribal Welfare Department	27,399	6.63
3	BC,MBC,DNC Department	2,69,134	107.17
Sub Total (b)		10,34,077	202.63
Grand Total [(c) = (a) + (b)]		16,88,069	865.29

3.5. GRAINS – Grower online Registration of Agricultural Input System

Consequent to the announcement made on the floor of Assembly by Hon'ble Minister for Agriculture and Farmers Welfare during 2022-23, the Department of Agriculture has implemented the GRAINS project. The main stakeholders of this project are:

- 1) Department of Agriculture
- 2) Tamil Nadu e-Governance Agency
- 3) Department of Revenue Administration and Disaster Management

The GRAINS Portal will act as single source of Truth for beneficiaries containing crucial details such as bank information, Aadhaar numbers, land records, and crop data, streamlining access to Governmental schemes. This single platform will enable farmers to conveniently access

benefits from more than 25 Departments implementing farmer-oriented Schemes.

TNeGA has developed both web and Mobile Application for "GRAINS" (Grower online Registration of Agriculture Input System), a new portal aimed at integrating farmer, land and crop registries while providing tailored agricultural advice to enhance crop production and improve farmers' livelihoods. GRAINS encompasses three core registries:

1. Farmer Registry, which systematically collects comprehensive farmer details and validates land ownership from the Tamil Nilam portal.
2. Geo-Referenced Village Map Registry, which includes geo-referenced village maps and Field Measurement Books (FMBs) for accurate land information.

3. Crop Registry, which utilizes geospatial technology to digitally capture crop areas at the sub-division level, offering real-time insights into crop coverage across the State.

Currently, the database includes details of 49.82 lakh farmer Data, 17,192 village maps, and Crop data for 72.45 lakh land sub-divisions.

TNeGA has deployed 18 Application Programming Interfaces (APIs) to communicate with user Departments for various functions like user profile, land details, crop information, and more. These APIs facilitate seamless integration of data from the GRAINS portal into Departmental systems.

TNeGA manages the technical aspects of the GRAINS portal, overseeing architecture, regular software updates and development. A dedicated technical team is positioned at TNeGA,

to ensure smooth operations. Validation of registered farmers, integration with land records and maintenance of the crop survey application are key responsibilities, done in consultation with the Revenue Department.

GRAINS portal also allows self-registration for farmers, verification by revenue officials and access for banks and insurance agencies via APIs. GRAINS portal has workflows for Village Administrative Officers, Farmers and Departmental Officers. The portal is integrated with National Payment Corporation of India (NPCI) and Reserve Bank Innovation Hub (RBIH).

4. Digital Office Tamil Nadu (DoTN) - e-Office

e-Office is the application suite which provides Electronic File Management System (e-File) to Government offices. TNeGA is rolling out e-Office application for all offices under the

administrative control of the Government of Tamil Nadu. In Phase-I, e-Office was implemented in all Departments of the Secretariat on 07.03.2022, onboarding 3,983 users. In Phase-II, e-Office was implemented in all District Collectorates (and its subordinate offices) on 30.06.2022, onboarding 24,810 users. In Phase-III, e-Office is being rolled out in Head of the Departments and so far 161 HODs have been configured with 53,150 users. As on 31.05.2024, 31,27,290 e-Files have been created by all the configured offices, which demonstrates the efficiency of the application in improving the governance.

TNeGA has distributed hardware infrastructure to end users of e-office as shown below:

S.NO	DEPARTMENTS	DESKTOPS	SCANNERS
1	40 Secretariat Departments	1348	41
2	35 HODs (Head offices)	1527	45
	TOTAL	2875	86

The e-File system facilitates paperless office within Government offices resulting in the speedy disposal of files. The communication both within and across offices is almost real-time, leading to improved efficiency in decision making. e-Office enhances transparency by which files can be tracked and their status is known to all at all times. The quality and speed in decision making is easier to monitor which increases accountability. Above all, e-Office assures data security and data integrity. During the year 2024-25, the whole of Government

including all Heads of Departments are expected to be fully onboarded on e-Office.

5. Tamil Nadu Decision Support System (DeTN)

5.1. Data Purity

The data purity project aims to:

- a) help the Departments identify the right beneficiaries and weed out ineligible ones,
- b) remove data of those deceased from the beneficiary lists,
- c) create a beneficiary database which acts as a decision-making support system for the Government
- d) reduce the current system of silos and bring about inter-Department sharing of data.

It will guarantee that citizens receive services that are efficient, transparent, and seamless.

The Kalaingar Magalir Urimai Thittam (KMUT) stands as a pioneering welfare initiative by the Tamil Nadu Government, aiming for comprehensive support to deserving beneficiaries. With an impressive participation of 1.63 crore individuals out of 2.24 crore PDS cardholders, the scheme demonstrated inclusivity by not demanding additional documentation. Leveraging advanced algorithms, it efficiently identified eligible recipients, while meticulous validation of bank accounts ensured a remarkable 99.13% success rate in disbursing payments. KMUT exemplifies a commitment in leveraging technology for equitable and efficient welfare delivery, setting a benchmark for future initiatives.

To aid those affected by the Michaung floods in Chennai, Tiruvallur, Kanchipuram, and Chengalpet districts, eligible families were assessed for cash assistance by analysing the PDS database for efficient Government relief distribution.

The identification of beneficiaries has been carried out for the Puthumai Penn scheme. In 2024-25, the Data Purity team will be instrumental in identifying beneficiaries for key initiatives like Thayumanavar scheme, Tamil Pudhalvan scheme, etc.

5.2. Chief Minister's Dashboard

The Tamil Nadu Chief Minister's Dashboard was launched on 23.12.2021. Originally designed as an information platform, the Dashboard has evolved into an internal governance tool that is useful in evidence-based decision-making.

The Dashboard currently covers 34 Departments, involving over 170 Directorates, with over 260 sub-dashboards with regular updates. A District Dashboard, which can aid the District Collector in proper monitoring and decision making was developed and access was given to 10 District Collectors on a pilot basis. The “Iconic Projects” Dashboard was developed to track the progress of over 280 projects as per the guidelines of Special Programme Implementation Department. The integration of e-portals of Departments through Application Programming Interface (API) have improved the effectiveness and efficiency of the Dashboards, enabling good governance.

6. TNeGA Core Projects

6.1. State Family Database (SFDB)

State Family Database (SFDB) involves Integration and unification of different Department databases to create a unified record

of Tamil Nadu citizens. This platform will act as a data integration and exchange platform for planning and monitoring of Government schemes and programmes. Integration of the 30 Departments' databases and creation of golden record of each resident from this is completed.

Makkal Portal will provide a single window access of demographic data to all residents from different Department databases.

The following are the major features of interests:

View Profile Details: Resident can view his/her family details and personal information, contact details and other information available in all different databases.

Benefits Availed: Resident can view the list of availed Government scheme benefits and its details.

Scheme Eligibility: The resident can view the list of eligible schemes based on the demographic details and eligibility criteria of the schemes.

e-Sevai Certificates: The resident can view the list of certificates received from e-Sevai.

SFDB – e-Pettagam Integration: Integration with “e-Pettagam” application in which resident have option to view and add documents.

Track CM Help Line Service Requests: Resident can view the status history of grievance raised in Muthalvarin Mugavari.

Makkal Portal Service Requests: Resident can view the status of grievance raised in State Family Database (SFDB).

The Departments of Government of Tamil Nadu have their own applications and associated databases. All these databases would

be unified to build SFDB core database and used to identify the unique beneficiaries across the State. It would enable increased awareness of State Government Services and proactive delivery of Government benefits and services to citizens in an inclusive manner. Makkal Portal and Back Office Portal will be launched in 2024-25.

6.2 Tamil Nadu Geographical Information System (TNGIS)

TNGIS is currently maintaining 300+ spatial data layers which includes both State coverage and Department specific layers collated from various Departments, that are being shared with other Departments as per need. More than 150 layers of data are shared with about 29 Departments. The available data is also hosted in the TNGIS web portal <https://tngis.tn.gov.in>. The boundary data (State, District, Taluk, Village, Ward, Town, Block, Panchayats etc) in

GIS formats is hosted for free download in TNGIS portal along with various API's for accessing the same and integrating in external applications. The boundaries are generated from the cadastral datasets.

Apart from this, TNGIS has developed several Department-specific GIS based applications. The activities carried out under TNGIS in the year 2023-24 are listed, below:-

1. More than 30 web and mobile applications has been developed for various Departments for different Departmental functional requirements, as below:
 - a. Spatial visualisation of the assets and facilities
 - b. Geotagged / Geofenced data collection,

- c. Thematic visualisation of data based on multiple parameters.
 - d. Dashboard with statistics, reports and charts
 - e. Applications for spatial visualisation of tabular data (excel files) and drill down visualisation – by geographical hierarchy based on any boundary layer
2. The geo-referenced cadastral boundaries are linked with the Tamil Nilam Database and Registration Department thereby providing an **Integrated Spatial view of land ownership**, type of land (dry or wet), type of ownership (Government or Private), land use – as per Registration Department views are made available.

3. Some of the key Departmental applications / functionalities and the spatial database developed by TNGIS are listed below:
- a. Categorization of **lands suitable for acquisition** based on cost, slope, ownership, land use, contiguity etc. tools for spatial visualisation and analysis / report on the total cost and line list of lands/owners.
 - b. Application to identify the suitable lands for acquisition and **generate the land acquisition report.**
 - c. Development of mobile application for **Digital Crop Survey** which uses the Geographical Information System (GIS) / Global Positioning System (GPS) technology for capturing the geotagged crop details with photographs – with geofenced

validation. In the Rabi season 72.45 lakhs crop enumeration is carried out by the VAOs.

- d. Extending the Digital Crop Survey app and integrating the same with **GRAINS portal – an integrated registry of land, farmers and crops**. This can be viewed by the general public and Departmental staff for registration, unified view and workflows.
 - e. Development of mobile app to **geotag the TASMACH outlets** and a geo-fenced validation enabled mobile app to carry out supervisory checks – **as part of inspection**.
4. TNeGA has conducted training and orientation on GIS and usage of its

application to more than 500 staff covering 10 Departments.

6.3. IT Security Audit

Security audit is mandatory before hosting any website/web applications in the Tamil Nadu State Data Centre (TNSDC) and before expiry of the audit certificate or whenever there is a change in the website/web applications/mobile applications.

Tamil Nadu e-Governance Agency (TNeGA) has taken up the security auditing of Government websites/web-applications/mobile applications for safe-guarding the critical Information of the Departments against cyber-attacks/threats.

The Government have sanctioned Rs.2,36,41,000/- to carry out security audit for 611 websites/web applications/mobile

applications of Government Departments/undertakings under this scheme.

In April 2024, a Standard Operation Procedure (SOP) was developed and communicated to all HODs. Alert Mails are being sent to Departments 3 months prior to the date of expiry of their security audit certificate, requesting them to initiate the re-security audit of their application.

For the year 2024-25, the security audit for 350 web applications has been proposed at a cost of Rs.1,19,50,000/-.

6.4. Artificial Intelligence / Machine Learning (AI/ML)

AI/ML strategy of TNeGA is to research and develop technological solutions for the problems in the society thereby fostering effective governance, social and economic development. Artificial Intelligence/Machine

Learning can provide new ways of approaching problems and to meaningfully improve citizen's lives. The focus in TNeGA is on applying AI to sectors such as Healthcare, Agriculture, Energy, and Education. This requires a concerted, collaborative effort across all sectors.

TNeGA is working closely with the Departments on the above focus areas. The existing applications developed by AI/ML team, listed below are being maintained and upgraded/developed:-

1. e-Paarvai, a mobile app-based system to detect cataract from images of eyes captured on mobile devices. So far 20,000 patients with cataract have been detected and recommended to District Hospitals for further advice and surgery.
2. Facial Recognition-based Attendance System (FRAS) – is used to recording the attendance

of staff. The existing system is accessible through a mobile device app. Attendance can be taken offline which helps field staff to mark attendance from the workplace, anywhere and at anytime. It also has a geo-fencing option wherein the user's location is validated against the allocated work location. Currently, the attendance of around 7000 staff members from various Departments is being tracked using this system.

3. Comprehensive Oral Health Assessment (COHA) – an Artificial Intelligence-based mobile application that records the details of users and screen them for symptoms of leucoplakia. This is done by analysing the images captured from mobile device. There are plans to expand the capabilities of the application to be able to detect other oral health conditions.

4. Name matching with transliteration – a new tool developed with AI to match names across systems - be it in English or Tamil. Beneficiaries are identified and their names are matched with the help of a scoring based system.

6.5. Blockchain – Nambikkai Inaiyam

TNeGA has built a Blockchain Backbone Infrastructure which would function as a truth and trust anchor for Government processes and Government data. Nambikkai Inaiyam was launched on 13 June 2023.

TNeGA has deployed the Phase I of Blockchain Backbone platform as the first few use cases for the following:-

- Secured and verified 24 e-Sevai certificates.
- Tamil Nadu State Board certificates and mark sheets for Tamil Nadu residents.

As of 31.05.2024, e-Sevai certificates (more than 2.5 lakh certificates) and registered documents (more than 36 lakhs) from Registration Departments have been secured in Blockchain, since its launch.

7. Government Department Projects

7.1. Mobile application and Dashboard for CM Breakfast Scheme

TNeGA has created a mobile application and dashboard to oversee the execution of the Chief Minister's Breakfast scheme at the school level.

Right from the commencement of the project, a real-time dashboard has been accessible to all stakeholders, enabling monitoring by key decision-makers at various levels including School Management Committees, Villages, Blocks/Zones, Municipalities/Corporations, and Districts.

Currently, the mobile application developed by TNeGA is being used by 30,992 schools on all working days to document the cooking and food-serving procedures. Further, daily supervision of the schools is being done at District level and State level. Recognizing the distinctive capabilities of the mobile application and its functionalities for overseeing and administering the Chief Minister Breakfast scheme, TNeGA received the "Chief Minister's Best Practices Award" for 2023 from the Honourable Chief Minister of Tamil Nadu.

TNeGA is currently in the process of developing an Automated Billing and Indent Management Module into the existing application. This module is designed to fully automate indent and billing procedures while also overseeing school-level inventory, with the current inventory status readily available on the dashboard for inspection purposes.

7.2. Other Department Key Projects

TNeGA has been instrumental in providing technical consulting services to design and develop e-Governance software for enabling digital services delivery channels for various Departments. TNeGA is supporting the Tamil Virtual Academy in the identification of Tamil Computing tools, Creation of Virtual Reality Content & Design, Development, and Maintenance of VR/AR/XR Hybrid platform, and in the Development of Integrated Digital Archival Management System & Portal, including Hybrid Mobile App.

TNeGA is supporting the technical evaluation committee in the following:-

- STAR 3.0 Project implementation of Inspector General of Registration Department

- ERP 2.0 implementation by Greater Chennai Police Department
- Integrated Housing Information System for Tamil Nadu Urban Habitat Development Board
- State High Level Committee to review Consultancy Services for Home Department
- End-to-End Computerisation of Public Distribution System (PDS) for continued Operation and Management Support services
- Public Distribution System 2.0
- Integrated Core Management System Software for Tamil Nadu Arasu Cable TV Corporation Ltd
- Naan Muthalvan Skill portal for Tamil Nadu Skill Development Corporation

- Expert Committee for Commissionerate of Treasuries and Accounts
- Screening Committee for Social Welfare.

TNeGA is also implementing the following projects:-

- State-wide Single Window Portal for Online Planning Permission and Approval system for building. This includes building plans, layouts, and reclassification (Online PPA) under CMDA, DTCP and various Urban & Rural Local Bodies (GCC, CMA, DTP, RD & PR).
- Development of Mathi Sandhai, a portal for the Tamil Nadu Corporation for Development of Women (TNCDW).
- Namma Grama Sabha Application for RD&PR.

- Elephant Death Audit Framework for the Tamil Nadu Forest Department.
- Online portal for Jallikattu events.

TNeGA has been supporting the various Departments for enabling the end-to-end computerisation of their business processes.

TNeGA has successfully setup IT Project Management Units (PMUs) for the Commercial Taxes Department, Registration Department, and Tamil Nadu State Marketing Corporation for the end-to-end implementation of their e-Governance initiatives.

7.3. e-Pass

TNeGA has implemented the Electronic pass (e-Pass) for Nilgiris and Dindigul Districts from 07.05.2024 to 30.06.2024 to assess the number of vehicles and tourists entering these regions. As per the directions given by Hon'ble High Court of Madras on 29th April 2024, TNeGA

launched the website on 6th May 2024. The website was developed in a short span of 5 days. Upon the successful launch of e-pass application and the QR code, 1,75,637 e-passes have been granted for Dindigul and 3,43,472 e-passes have been generated for the Nilgiris. A total number of 27,64,882 passengers have registered till 14.06.2024 using this application.

8. IT Services offered to other Departments

8.1. SMS and WhatsApp Gateway

In order to spread awareness of and the schemes of the Government, TNeGA is providing SMS Gateways to all Government Departments at a low cost and in an effective manner. Currently SMS Gateways are provided to 60 Departments/Boards/PSUs/Agencies. Since the provision of SMS Gateways began, 136 crore SMS and 7 crore WhatsApp messages have been delivered to beneficiaries. During the year

2024-25, 150 Crore SMS and 15 Crore WhatsApp Messages are expected to be sent.

8.2. Online Exam as a Service (EaaS)

In order to facilitate the Government Departments to fill vacancies efficiently, TNeGA is providing online 'Examination as a Service' to Departments. EaaS aids in the pre-examination setup, examination process, and post-examination activities.

So far six Departments/Boards, namely the Chennai Metropolitan Development Authority (CMDA), Tamil Nadu Veterinary and Animal Sciences University (TANUVAS), Teachers Recruitment Board (TRB), Medical Services Recruitment Board (MRB), Sports Development Authority of Tamil Nadu (SDAT) and Madras High Court have utilised this service. During 2023-24, around 5,06,677 candidates applied for these exams and 3,46,146 candidates have

appeared to take various exams, using this online examination service.

8.3. eSign as a Service

eSign is one of the key elements pivoting to a paperless mode of operation. eSign allows citizens to instantly and securely sign their documents online using any device. The Indian IT Act, 2000 legalised the instant electronic signing of documents, which has since proven to be a cost-effective method as well.

e-Sign service supports both One Time Password (OTP) and Biometric (Fingerprint) based modes of authentication for UIDAI's eKYC service.

Currently, the eSign service is used by 14 Departments. 1,71,92,827 e-Signatures have been cumulatively carried out since 2020. During 2024-25, a new version of eSign – eSign 3.2 will be launched. eSign 3.2 will allow

multiple signs with one OTP. It's cumulative usage is expected to cross 2.5 crores during 2024-25.

8.4. API Gateway as a Service

The API Gateway acts as a central hub for managing, securing, and regulating APIs, facilitating efficient and secure communication between applications and their services. Utilising an API Gateway gives the following advantages to different Departments:

- **Interdepartmental Integration:** It allows secure exchange of data and services between various Government Departments.
- **Standardisation:** By establishing standardised protocols and formats for API communication, it ensures consistency and compatibility across different systems and applications used by various Departments.

- **Enhanced Security:** Robust authentication and authorisation mechanisms are implemented to control API access, safeguard sensitive Government data, and ensure compliance with data protection regulations.

To harness the potential of the API Gateway solution, TNeGA has enlisted a vendor for a two-year contract (March 2024 – March 2026). The vendor will be responsible for installing the API Gateway solution in TNSDC and developing 230 APIs during the contract period (March 2024 – March 2026). Additionally, TNeGA plans to develop 200 additional APIs through the API Gateway between March 2026 – March 2027.

8.5. Aadhaar as a Service

TNeGA is the State Registrar for Aadhaar enrolment through Permanent Enrolment Centres across Tamil Nadu. The Permanent Enrolment Centres are being run and maintained

by M/s.ELCOT and M/s.TACTV. Aadhaar authentication is facilitated by TNeGA, for the validation of the beneficiaries instantly anytime, anywhere for various Departments. As the registrar, TNeGA is providing AUA (Authentication User Agency)/KUA (e-KYC User Agency) services to 41 Sub-AUA/KUA Departments and onboarding of 8 Departments is in process. **The Aadhaar authentication may be done through OTP, Fingerprint, Iris and Face authentication.** To avoid biometric failures, TNeGA has successfully implemented **IRIS authentication** for Civil Supplies and Consumer Protection Department.

Achievements:

- The Aadhaar seeding system has prevented beneficiaries from availing the benefit more than once from the Government for the same scheme.

- TNeGA successfully facilitated the Civil Supplies and Consumer Protection Department in authenticating 2,24,18,707 family cardholders for the distribution of Pongal gift hampers within a span of three days.
- 34,92,560 applicants' details have been verified for new and old electricity connections using Aadhaar biometrics.
- The Civil Supplies and Consumer Protection Department has distributed flood relief grants to PDS family cardholders through the PDS/Fair Price shops using Aadhaar authentication in the following districts of Tamil Nadu: Chennai, Thiruvallur, Kancheepuram, Tirunelveli, Thoothukudi, Kanyakumari.
- The Civil Supplies and Consumer Protection Department authenticates a

total monthly transaction of 4,29,08,025 in the State for all the 38 districts. (The maximum transaction count of 32,91,086 was recorded on 05.11.2023).

- TNeGA has developed the Face Auth eKYC App which was used for the eKYC authentication of 2.03 Lakh students registered by the School Education Department for Scholarship Processing, using the State Scholarship Portal.

8.6. Direct Benefit Transfer (DBT)

The Direct Benefit Transfer platform is a unified digital platform for processing Direct Benefit Transfers for State Government and Central Government schemes. All the necessary validations and verifications for transferring cash benefits to citizens, including Aadhaar verification, name verification, bank account linking status, etc., would be carried out through the platform.

After verification and receiving approval from the Department, the benefits would be transferred directly to the citizens' bank account through the Aadhaar based Payment System.

The details of schemes onboarded in DBT are as follows:

Sl. No	Name of the Scheme	Number of Beneficiaries
State Sponsored Scheme		
1.	Old Age Pension (OAP) Pilot of Ariyalur, Perambalur Districts	84,050
2.	Pudhumai Penn Scheme	2,70,020
3.	Kalaingar Magalir Urimai Thittam (KMUT)	1,15,21,735
4.	Adi Dravidar Welfare - Girls incentive schemes	90,352
Central Government sponsored schemes		
5.	Backward Class (BC) / Most Backward Class (MBC) - Post Metric and Pre-Metric Scholarship Schemes	2,47,437

During the year 2024-25, another 15 Departments are expected to begin using the DBT platform.

9. Policies and Standards

9.1. Reference Standards

The '**Reference Standards**' for data and cyber security version 1.0 is a compilation of the list of standards relevant to e-Governance projects. The standards have been categorised as mandatory and recommended. All e-Governance applications/software/hardware specifications by Departments have to comply with the mandatory standards. All tenders will be reviewed and approved for compliance at every stage of the project by Standards Compliance Technical Committee (SCTC), chaired by CEO, TNeGA. This is being enforced for all new e-Governance applications as well.

9.2. Tamil Nadu Data Policy

TNeGA is the Nodal Agency for the Government data vide Tamil Nadu Data Policy published by the Information Technology & Digital Services Department, Government of Tamil Nadu. The data collected by TNeGA will be co-owned by it on behalf of the Government of Tamil Nadu with the primary owner being the agency/Department/Ministry/Entity that collected and provided it to TNeGA.

CEO, TNeGA, is the State Chief Data Officer for implementing the various tenets of the policy.

10. Sustainable Development Goals (SDGs)

The SDG indicators related to the TNeGA and their achievements are as follows:

Sl. No.	Indicators	2023-2024 Performance (As on March 2024)
1	16.6.1: No. of Government services provided online to citizens	404
2	16.6.1a: No. of Departments/ Agencies integrated for mobile Governance	51
3	16.6.1b: No. of e-transactions on e-Taal (in Crores)	47.85
4	16.6.1c: No. of operational common service centres	32,908

CHAPTER-IV

TAMIL NADU ARASU CABLE TV CORPORATION LIMITED

1. Introduction

Tamil Nadu Arasu Cable TV Corporation Limited (TACTV) is a Government of Tamil Nadu Undertaking, incorporated under the Companies Act, 1956 on 4.10.2007, with an aim to provide high quality cable signals to the public through Local Cable Operators at an affordable cost. The service provided by the TACTV Corporation is a welfare step taken by the Government in the interest of the public and cable TV operators. The TACTV Corporation is operating in Tamil Nadu with a digital subscriber base of around 15 lakhs. TACTV supports the livelihood of around 10,000 Local cable operators and around 15,000 workers in the industry. To take care of their welfare, the Government has formed a Welfare Board in 2024.

2. Vision

To provide high quality digital Cable TV service, and, e-Sevai services to the public at an affordable cost using the latest and emerging Technologies.

3. Mission

- To provide high quality Digital Cable TV service to the public at an affordable cost through the Local Cable Operators.
- To provide an enabling environment to facilitate the livelihood of Local Cable Operators through cable TV services.
- To provide role model 'e-Sevai front offices' for the benefit of the general public.

4. Digitalization of Cable TV Service:-

The Ministry of Information & Broadcasting, Government of India has mandated that the Cable TV operations would be

digitalised in four phases all over the Country before 31.03.2017. Accordingly, TACTV had applied for the DAS (Digital Addressable System) license for the Chennai Metro Area on 05.07.2012 and for the rest of Tamil Nadu on 23.11.2012, which culminated in the issuance of DAS license on 17.04.2017. Remarkably, TACTV is the only State Government Undertaking in the Cable TV industry to get the Digital Addressable System License in the Country.

In order to further strengthen the technical infrastructure, and for embedding the latest technology to provide quality motion pictures in the Digital Cable TV technology, TACTV replaced its existing Motion Picture Expert Group (MPEG2) with the advanced (MPEG4) technology version at Digital Head End with higher channel carrying payload through Digital Transmission mode.

In order to cater to needs of the general public, TACTV is providing quality Digital Cable service at an affordable cost of Rs.140+GST with 229 channels; 147 Free To Air (FTA) channels + 82 PAY channels. This is the lowest Digital Cable TV subscription rate in the country. The revenue sharing pattern is fixed as Rs.70/-+GST for TACTV and Rs.70/-+GST for Local Cable TV Operators.

TACTV has explored all possibilities and worked out the modalities to provide New STBs with the latest technology to ensure wider reach of quality digital TV signals for the public at nominal cost.

5. Arasu e-Sevai Centres:-

TACTV has established Arasu e-Sevai Centres in 2014 to provide Government to Citizen Services (G2C). At present, TACTV is operating 513 Arasu e-Sevai Centres with 684 counters across the State in urban and semi

urban areas and providing an array of 136 Citizen Centric Services of the Government. During the last year (2023-24), about 17.83 lakh transactions have been made through Arasu e-Sevai Centres which has benefitted the public.

6. Permanent Enrolment Centres (PECs) for Aadhaar

The Government of Tamil Nadu appointed Tamil Nadu e-Governance Agency (TNeGA) as the Registrar for Aadhaar enrolment in Tamil Nadu. The TNeGA has authorised TACTV to act as the Enrolment agency for Aadhaar from 01.10.2016. TACTV has established 326 Permanent Enrolment Centres with 364 counters across the State. During 2023-24 about 2.10 lakh new Aadhaar enrolment and 20.34 lakh mandatory biometric and demographical updates have been made through Permanent Enrolment Centres.

TACTV PEC Transactions Report (Year Wise)				
Sl. No.	Financial Year	New Aadhaar Enrolment	Mandatory biometric/ Demographical Updates	Total Transactions
1	Apr-21 to Mar-22	3,30,001	19,09,058	22,39,059
2	Apr-22 to Mar-23	2,56,235	19,02,295	21,58,530
3	Apr-23 to Mar-24	2,10,345	20,33,895	22,44,240
Total		7,96,581	58,45,248	66,41,829

7. Tamil Nadu Cable TV Operators and Workers Welfare Board

As per G.O.(Ms.) No.3, Information Technology and Digital Services (A1) Department, dated 13.01.2024, the Cable TV

Workers Welfare Board was reconstituted and rechristened as Tamil Nadu Cable TV Operators and Workers Welfare Board. It includes the Local Cable Operators as members of the Welfare Board, thereby extending welfare schemes to all workers in the Cable TV industry. The enrolment of eligible members is underway.

CHAPTER-V

TAMIL NADU FIBRENET CORPORATION LIMITED (TANFINET)

“BharatNet” project is being implemented in Tamil Nadu by the Tamil Nadu FibreNet Corporation (TANFINET), a Special Purpose Vehicle (SPV) setup by the Government of Tamil Nadu. The aim is to provide 1 Gbps bandwidth connectivity to all 12,525 Gram Panchayats with Optical Fibre cable. The Unified Digital Infrastructure (UDI) project is planning to fulfil the connectivity requirement of Government Departments & Households in both rural and urban areas at an affordable cost. TANFINET is implementing the Last Mile Connectivity (LMC) Project to ensure the effective utilization of the BharatNet.

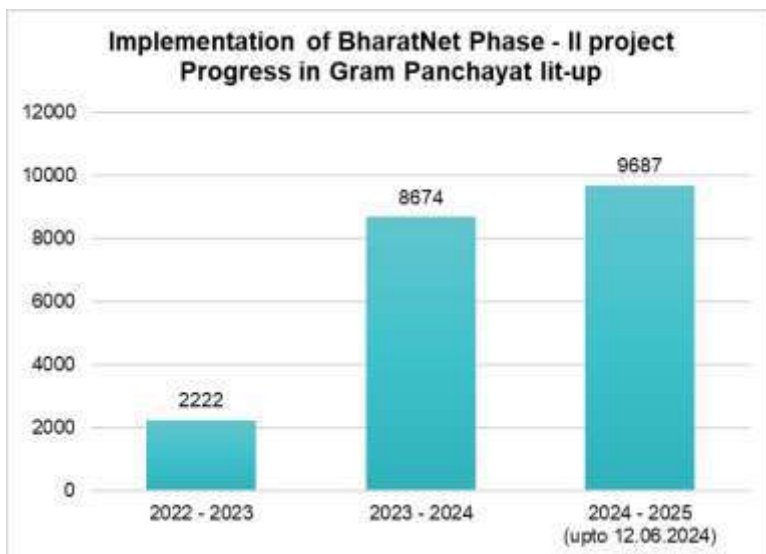
1. BharatNet:

This project is being implemented by TANFINET at an approved cost of Rs.1815.31 Crore [funded by Universal Service Obligation Fund (USOF), Department of Telecommunications, GoI]. Under this project, 57,500+Km of Optical Fibre Cable is being laid to connect 12,525 Gram Panchayats. The project aims to provide 1 Gbps bandwidth to the Gram Panchayats, which will enable TANFINET and other service providers to extend high-speed broadband connectivity to rural areas. By establishing such infrastructure, facilities such as Tele-medicine, Tele-education, and the dissemination of new technologies etc., can be made available to the rural people of the State.

The implementation of the project has been divided into four packages (A, B, C & D) geographically as follows:

Package Name	No. of Blocks	No. of GPs	OFC Route Aerial Length (in Km)	OFC Route UG Length (in Km)
A	75	3,095	12,212	1,697
B	94	3,001	12,139	1,558
C	110	3,326	14,072	1,437
D	109	3,103	12,704	1,924
Total	388	12,525	51,127	6,616

The on-field implementation of the BharatNet Phase-II project is progressing across the districts. As of 12.06.2024, 77% of the project scope has been achieved by connecting 9,687 Gram Panchayats, using 43,712 kms of aerial OFC, and 5,229 kms of underground OFC to the nearest block.



2. Last Mile Connectivity

Under the 'Special Assistance Scheme to States for Capital Investment for 2022-23', the Government has granted approval for the Last Mile Connectivity Project at an outlay of Rs.184 Crores. This project aims to connect Government Institutions/Offices and Households using the BharatNet infrastructure. Accordingly, the Letter of Acceptance for the LMC Project has been awarded to the successful bidders to supply,

install, and integrate around 9,500 Optical Line Terminals (OLTs) across the State to provide Last Mile Connectivity using optical fibres, with an upgraded broadband ecosystem. Further, all district headquarters are proposed to be connected to the nearest BharatNet Point of Presence (PoP) at Block headquarters.

In order to provide connectivity services, TANFINET has obtained class "B" Internet Service Provider (ISP) license from the DoT. TANFINET has also proposed to onboard Franchisee Partners(s) to enable the connection of end user locations.

3. TamilNet - Unified Digital Infrastructure (UDI)

In order to provide seamless connectivity to urban areas and set up a backbone infrastructure for BharatNet, the Government has proposed to implement the "TamilNet" project. "Unified Digital Infrastructure" project

envisages implementing "TamilNet" and integrating BharatNet with TamilNet, to create a unified network ecosystem. Doing so would enable urban citizens to reap the benefits of the digital revolution with assured quality at an affordable cost. UDI will also act as the backhaul optical fibre infrastructure of BharatNet.

4. Tamil Nadu State Wide Area Network (TNSWAN) & Other Connectivity Services

Earlier, ELCOT has been providing TNSWAN connectivity services through Point-to-Point, Leased Line (P2P-LL). Based on the information provided by the Government, the Government Offices covered under TNSWAN, viz., 1876 are under TANFINET with effect from 14.11.2023 and are being upgraded to Multi-Protocol Label Switching Virtual Private Network (MPLS VPN)/Internet Leased Line (ILL). TANFINET has adopted MPLS VPN-based connectivity, which provides higher bandwidth,

eases the maintenance of circuits, reducing the number of network hops and lesser network downtime. As on 12.06.2024, 1266 number of TNSWAN offices are provided with MPLS VPN connectivity services based on the requirement of various Government offices.

TANFINET has been appointed as the Optional Procurement Agency (OPA) to provide connectivity services to Government Departments. Until now, TANFINET has issued work orders to connect 710 locations and work has been completed in 454 locations.

5. Sustainable Development Goals

As per the Sustainable Development Goals, the Government has created a performance indicator of TANFINET Corporation called "Percentage of Gram Panchayat with High-speed Fibre Optic Connection". As of 12.06.2024, out of the proposed 12,525 Gram Panchayats under BharatNet Project, 9,687

Gram Panchayats have been successfully commissioned, thereby achieving 77% in the above performance indicator.

6. Benefits

On completion of BharatNet and Last Mile Connectivity, TANFINET would be able to provide high-speed connectivity services at affordable cost to the Government Departments, Private institutions and Households in the State of Tamil Nadu.

CHAPTER-VI

TAMIL VIRTUAL ACADEMY

1. Introduction

Tamil Virtual Academy (TVA) was registered as Tamil Virtual University under section 27 of Tamil Nadu Societies Registration Act 1975, in the year 2001. Tamil Virtual University was rechristened as Tamil Virtual Academy on 16th July 2010. Tamil Virtual Academy aims to provide online Tamil education for the Tamil Diaspora, maintain Tamil Digital Library and promote Tamil Computing.

2. Objectives of Tamil Virtual Academy:

- ❖ Conducting Certificate, Higher Certificate, Diploma, Higher Diploma and Degree courses in Tamil.

- ❖ Developing Software to promote Tamil Computing.
- ❖ Maintaining Tamil Digital Library and Digital Cultural Repository.
- ❖ Providing information about Tamil culture and civilization to the Tamil Diaspora and others across the globe.

3. Academic Programmes

Tamil Virtual Academy offers Primary Certificate, Higher Certificate, Diploma, Higher Diploma, and Degree (B.A. Tamilology) courses. So far 68,620 students have enrolled in these courses. The details are as follows:

3.1 Primary Course

Primary Course is designed for Kindergarten students.

3.2 Certificate Course

Three levels of Certificate Courses are offered:

S.No.	Level	Equivalence
1.	Basic	Classes 1 & 2
2.	Intermediate	Classes 3 & 4
3.	Advance	Classes 5 & 6

So far, 13160 students have passed in the above courses.

3.3 Higher Certificate Course

Three levels of Higher Certificate Courses are offered:

S.No.	Level	Equivalence
1.	Grade 1	Classes 7 & 8
2.	Grade 2	Classes 9 & 10
3.	Grade 3	Classes 11 & 12

So far, 1440 students have passed in the above courses.

Certificate and Higher Certificate Course – Country Wise



3.4 B.A. Tamilology Degree Programme

B.A. Tamilology Degree programme has been designed in such a way to award Diploma, Higher Diploma and Degree courses in three stages.

The details of the number of students that have passed so far are as follows:

- ❖ Diploma Course - 2596
- ❖ Higher Diploma Course - 2057
- ❖ Degree Course - 1731

In order to implement the above academic programmes, 170 contact centres in 36 Countries have been established. The details have been uploaded in Tamil Virtual Academy website (www.tamilvu.org).

3.5 Tamil Parappurai Kazhagam

As per the announcement made on the floor of Assembly on teaching Tamil as a second or third language to the Tamil diaspora, Tamil Parappurai Kazhagam activities are being implemented by Tamil Virtual Academy with the government funding to the tune of Rs.1.00 crore sanctioned in 2022-23.

3.5.1 Tamil learning resources:

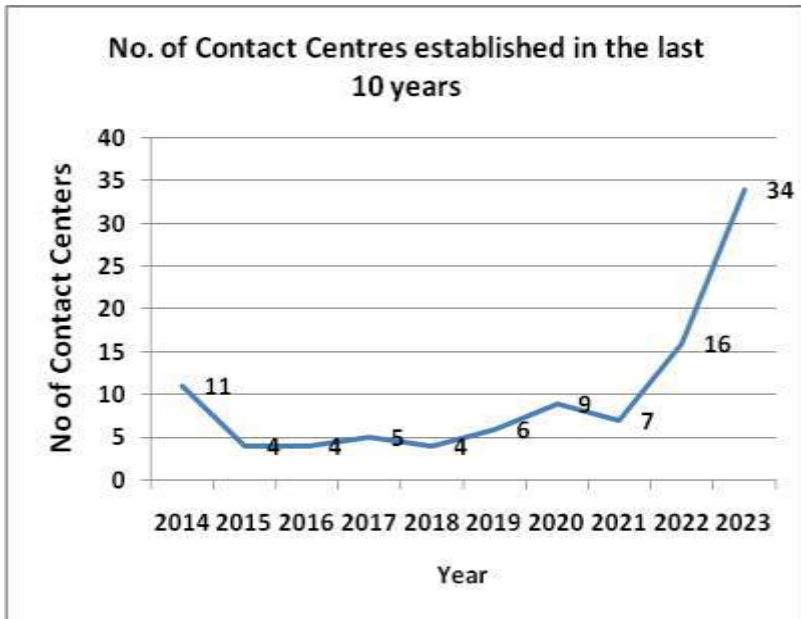
The existing 6 levels of Certificate and Higher Certificate courses of Tamil Virtual Academy have been restructured into 5 levels – Akaram (equivalent to 1 & 2 standards), Ikaram (equivalent to 3, 4 & 5 standards), Ukaram (equivalent to 6, 7 & 8 standards), Lakaram (equivalent to 9 & 10 standards), Cikaram (equivalent to 11 & 12 standards) with a skill-based syllabus (Listening, Speaking, Reading, Writing). In order to facilitate multimodal learning for the students, supplementary learning tools like Audio-books, Read-along books, Animation videos, Video lessons, and Flash Cards are being developed.

The launching ceremony of Tamil Parappurai Kazhagam and Level 1 Semester 1 textbook, its translation (24 languages), transliteration (13 languages) and supplementary learning tools was inaugurated

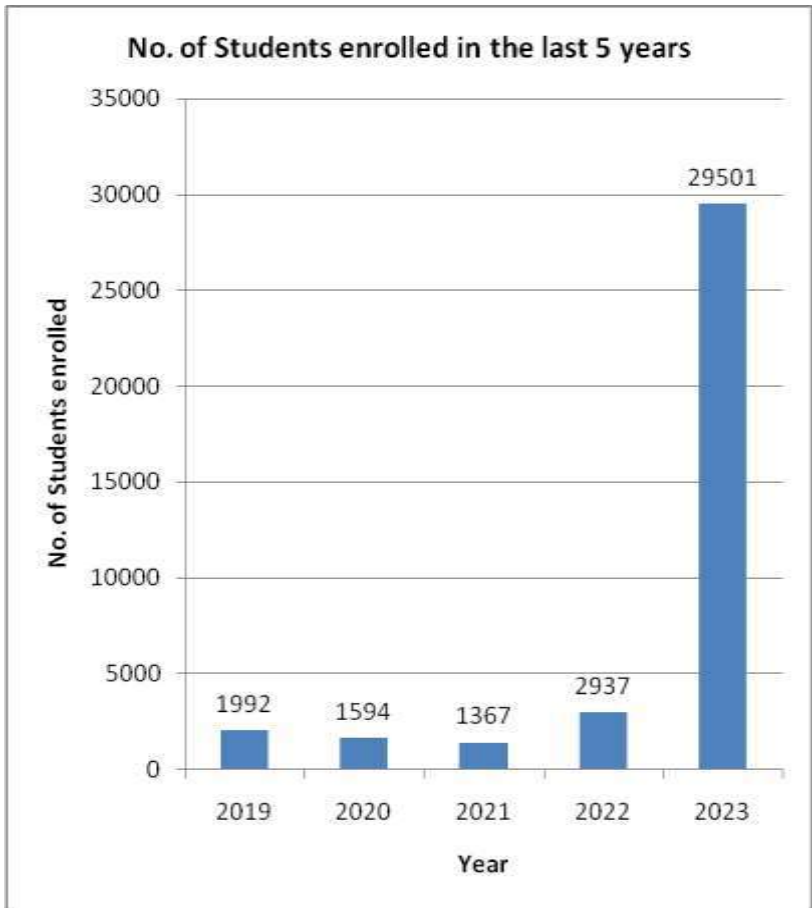
by Honourable Chief Minister of Tamil Nadu on 24.09.2022

3.5.2 New Contact Centres

- 44 new Contact Centres have been established in 20 countries since the launch of Tamil Parappurai Kazhagam.



Student Enrolment



3.5.3 Cultural propagation activities

- Martial arts – videos of the basics of Silambattam training were shot and have been uploaded.
- The presentation of Thevaram and Thiruvagasam hymns in contemporary music is being made. It includes visuals of temples and the places where the hymns were recited.
- Online Pannisai Payirchi classes are being conducted for the Tamil devotional music enthusiasts of Tamil Diaspora.
- The works are underway to prepare a table calendar by selecting 366 verses from Sangam Literature, accompanied by drawings portraying the culture of ancient Tamils, with explanations in Tamil and English.

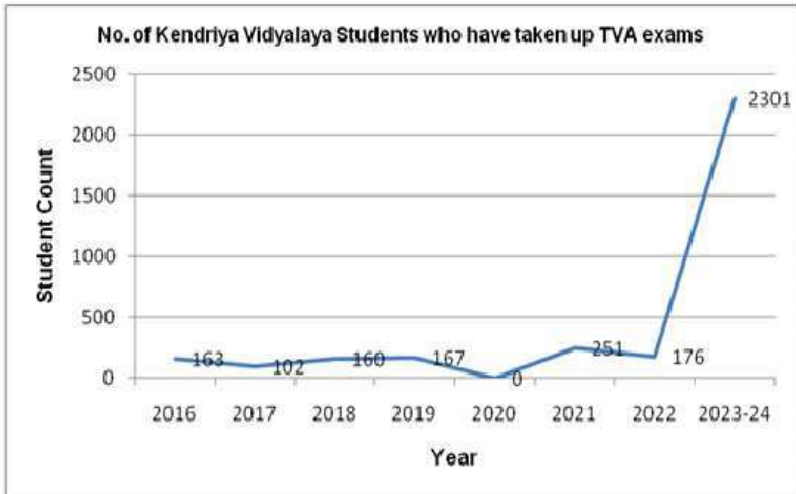
3.5.4 Diploma in Tamil Teaching

One year Diploma course on Tamil Teaching for volunteer teachers of Tamil Diaspora students has been launched by the Hon'ble Chief Minister of Tamil Nadu on 26.09.2023.

3.5.5 Online Classes:

Online Tamil Classes are being conducted for students of various countries and Indian States. Certificates are issued after conducting examinations.

The enrolment of Kendriya Vidyalaya students in Tamil Virtual Academy's academic programme has sharply increased from 4 schools to 51 schools in the Chennai region during 2023-2024. Online Tamil classes are also being provided to these students.



3.5.6 Spoken Tamil Course

Spoken Tamil classes, a new initiative, are being conducted for Central Government Employees and Industrial workers who have recently migrated to Tamil Nadu.

3.5.7 Financial Assistance

There are plans to provide financial assistance that would cover teachers' remuneration, classroom rent for Tamil associations, and Tamil schools operating in other countries and states.

Efforts are being taken to send two teachers to Fiji to conduct Tamil classes.

3.6 Theera Kadhal Thirukural:

To spread the teachings of the Thirukkural among school and college students and to encourage their painting skills, a painting competition titled 'Kuraloviyam' was organised. From this, 365 best paintings were selected and compiled into a Thirukkural daily table calendar book. On 21.12.2022, a Thirukural dance drama titled 'Kural Inidhu' was conducted for the benefit of school and college students. It is planned to conduct the events regularly.

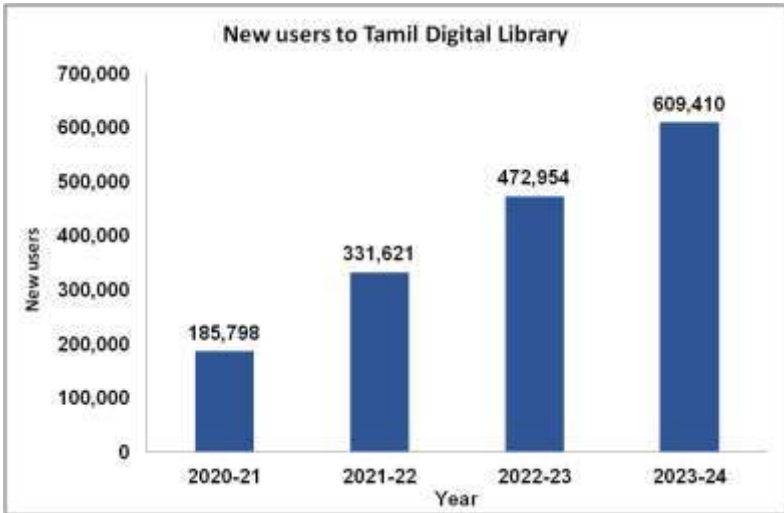
3.7 Higher Education:

- A book titled 'தமிழைப் பிழையின்றி எழுதுவோம்' is being written.
- The revision of the syllabus for Bachelor's Degree in Tamilology is nearing completion.

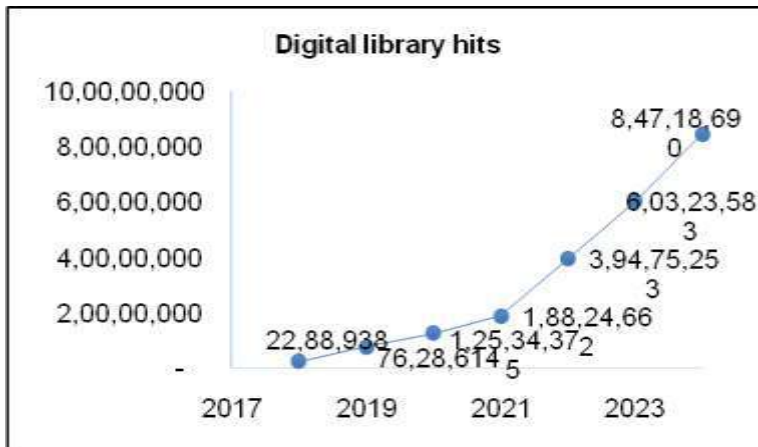
- The syllabus has been developed for Master's Degree in Tamilology. Lesson writing is in process.

4. Digital Library

Tamil Virtual Academy hosts a Tamil Digital Library (www.tamildigitallibrary.in) which contains rare books, periodicals, manuscripts, documents on literature, religion, history, and medicine dated from 18th century onwards. This is the largest digital library among the South Asian languages. So far more than 1 lakh books, periodicals, documents have been digitised and uploaded. The library is being continuously enriched by adding more rare documents. The website has been visited more than 8.5 crore times.



Google Analytics Data



Digital library website hits

4.1 Palm-leaf digitation

8,02,000 palm-leaf pages of manuscripts from the Dr. U. V. Saminathar Library, Directorate of Indian Medicine and Homeopathy and International Institute of Tamil Studies have been digitised and uploaded in the website.

4.2 Inclusive Digital Library

The Government sanctioned an amount of Rs. 1.00 crore in the year 2021-22 to expand the digital library into an Inclusive Digital Library that could be accessed by the visually impaired. 12.85 lakh pages out of 14 lakh pages of printed books in the digital library have been converted into text by using Optical Character Recognition technology. Steps have been taken to convert 1,30,000 pages into files like doc/odt, epub, daisy, kindle, etc.. They have been proof-read, captions have been added accordingly, and content pages have been translated into Braille.

So far 62,365 pages have been made accessible.

4.3 Digitisation of rare audio-video, photographs and other historical documents

The Government allocated an amount of Rs.1.00 crore in the year 2021-22 to digitise rare audio-video, photographs and other historical documents. So far 6,974 photographs and 800 hours of audio-visual contents have been digitised and are being uploaded on the website.

4.4 Digitisation of rare books, periodicals, manuscripts and other important documents and modernization of Digital Library

The Government allocated an amount of Rs.96.65 lakh in the year 2022-23 for the digitisation of rare books, periodicals, manuscripts and other important documents. So far, 11,74,589 pages have been digitised.

4.5 Tamilar Tagavalaatruppadai

The Tamil Virtual Academy has created the Tamilar Tagavalaatruppadai, a comprehensive and collaborative repository of Tamil language, literature, and arts resources. Under this scheme, Tamilar Tagavalaatruppadai website (www.tagavalaatruppadai.in) has 31,158 photographs pertaining to history and culture of Tamil Nadu. So far, this website has been visited 44.56 lakh times.

4.6 Digital Cultural Atlas

The Government allocated an amount of Rs.99.72 lakh in the year 2022-23 for the creation of the Digital Cultural Atlas of Tamil Nadu. Field surveys and the documentation of data are in progress in 5 districts around the Madurai region.

4.7 Celebrating 150th Birth Anniversary of 'Kappalottiya Tamilan' V.O. Chidambaranaar – digitise and publish his books and manuscripts in the internet

In commemoration of 150th Birth Anniversary of 'Kappalottiya Tamizhan' V.O. Chidambaranaar, 127 books, manuscripts, photographs, documents and multimedia content have been digitised and uploaded. The special webpage was inaugurated by the Honourable Chief Minister of Tamil Nadu on 18.11.2022. (<https://www.tamildigitallibrary.in/voc>)

4.8 Commemoration of Muthamizharignar Kalaighnar Centenary - Creation of Kalaighnar 100 Webpage

To commemorate the centenary of Muthamizharignar Kalaighnar, a special web page named 'Kalaighnar 100' as part of the Tamil digital library. This page will contain his books and their translations, magazines,

commentaries, audio-visual speeches, cartoons, photographs and press clippings, books, and a bibliography on Kalaignar.

4.9 Documenting Ph.D Thesis Abstracts, Synopses and Glossaries from all State Government universities.

The abstracts, theses and glossaries of doctoral theses from all State Government universities will be uploaded on the website. 1,779 Ph.D thesis abstracts have been received by the universities since 2022.

5. Research and Development - Tamil Computing

Tamil Virtual Academy has been developing and uploading various Tamil computing software and tools for the past 25 years.

5.1 Tamil Software and Tools

Tamil Virtual Academy has developed the following Tamil software and tools for the benefit of students, researchers, language technology enthusiasts. These can be downloaded for free from www.tamilvu.org website.

5.1.1 Tamil Unicode fonts

Since Tamil Unicode fonts are essential for enhancing the usage of Tamil on digital devices, Tamil Virtual Academy has developed 15 Tamil Unicode fonts called Bharathi, Kapilar, Kambar, Valluvar, Marutham, Cauvery, Ezil, Kurinji, Mullai, Palai, Urai, Achu, Malar, Neythal and Nilavu available in Regular, Italic, Bold and Bold Italic formats.

The Government of Tamil Nadu has issued an order stating that 'TAU-Marutham' Unicode font as a standard for Tamil documents to be used by all the Government Departments.

5.1.2 Keezhadi Keyboard

Tamil Virtual Academy launched Keezhadi Keyboard in October 2021 and it consists of three keyboards:

- Tamil99 keyboard
- Old Typewriter keyboard
- Phonetic keyboard

5.1.3 Thamizhi Unicode Converter

This software was launched in October 2021 and it helps in converting documents typed in ASCII, TAB, TAM, Vanavil, and other encodings available in text files and folders, into unicode. It also converts doc, docx, rtf, xls, xlsx, ppt and pptx.

5.1.4 Spell Checker

A spell checker tool 'Tamilinaiyam-Pizhaithiruthi' has been developed and uploaded

to correct Tamil typographical errors while typing documents in Tamil on digital devices.

5.1.5 Grammar Checker

There are two types of grammatical traditions available in Tamil viz., Traditional Grammar, Modern Grammar. This tool is used to learn Tamil Grammar in a simple way. Modern Tamil verbs have also been included in this.

5.1.6 Index – Concordance

The Indexes and Concordances for 100 ancient Tamil Literature pieces have been compiled. This can aid Tamil scholars.

- Indexes – identify the frequency of the usage of a particular word in a piece of literature.
- Concordances – identify the context in which a word is used.

5.1.7 Visual Thesaurus for Tamil

Visual Thesaurus for Tamil has been developed, to provide synonyms that show the shades of meaning a single word has. As this Visual Thesaurus for Tamil has been created for modern Tamil language, it does include words found in ancient writings, as these words are now mostly obsolete.

5.1.8 Kalaignar Syntactic Parser

In order to analyse the structure of sentences, the '**Kalaignar Syntactic Parser**' has been developed. This tool breaks down a sentence into small phrases, allowing the user to understand the relationship between the structure and phrases. In the era of emerging AI, this tool will prove to be very useful for enhancing language technology. This software was launched on 10th February, 2024 during KaniTamil24 conference held in Chennai.

5.1.9 Hyphenation for Tamil type setting

This tool helps in spacing between the words in a paragraph and splits a longer Tamil word syllabically.

5.1.10 Databases

A searchable database has been created, containing the information found in Chera, Chola, Pandyas inscriptions and hero stones. It is available in modern Tamil and Roman scripts.

A word corpus bank, consisting of 200 million modern Tamil words has been created.

These databases will be useful for Tamil researchers and Tamil software developers.

5.2 Software Tools under development

The following software are being developed, utilizing Tamil Software Development Fund (TSDF).

5.2.1 Tamil Text Editor

This tool helps to compile indexes and concordances for Tamil literature. It also functions as a Search Engine.

5.2.2 Inscription Reader

This software translates 6th to 10th century inscriptions from Kancheepuram district into modern Tamil.

5.2.3 Tamil Chatbot

This software aids students in comprehending the lessons of the Tamil Virtual Academy's lessons through simple questions.

5.2.4 Tamil Learning App

This App helps the learners get familiar with the different tenses of Tamil verbs through games by gaming.

5.3 Old Tamil Literature – Grammatical Indications

Indexes and concordances for 100 early Tamil literature pieces have been compiled. Further, the grammatical features in the literary works are provided. This helps us to understand the history of Tamil grammar.

5.4 Artificial Intelligence software

Artificial intelligence shapes today's world in multiple fields. Therefore, AI-based software is being developed for the Tamil language. As per the announcement made in Legislative Assembly in the financial year 2022-23, an amount of Rs.110.35 lakh has been allotted to develop the following software.

1. Chatbot and Question-Answer for Tamil
2. Tamil Syntactic Parser
3. POS and Semantic Labelling for Tamil
4. Sentimental Analysis for Tamil

5. Tamil speech dialects to text
6. Tamil Hand written and Palm-leaf manuscripts converter
7. Hyphenation for Tamil

5.5 Unicode Consortium

The Tamil Virtual Academy is an institutional member in Unicode Consortium, United States of America on behalf of the Government of Tamil Nadu. All Tamil letters, old Tamil fractions, symbols, and Tamil vattezhuttukal are being added to the Unicode Registry database for the benefit of the general public.

5.6 Forum for Tamil Computing

The Forum for Tamil Computing is a scheme launched to create awareness among students on Tamil Computing. So far, 212 forums have been started in Universities/Colleges across Tamil Nadu.

5.7 Diploma in Tamil Computing

In this era, the use of digital devices has been instrumental in job creation. Thus, the idea for commencing a Diploma in Tamil Computing Course is set. The curriculum will cover the following topics:

1. An Introduction to Tamil Computing
2. Tamil Computing Software
3. Natural Language Processing
4. Corpus Creation
5. Tagging the grammatical indication
6. Teaching – Learning through Computer
7. Machine Translation

5.8 KaniTamil24 – International Tamil Computing Conference

KaniTamil24 – International Tamil Computing Conference, 2024, was conducted after a gap of 25 years by the Tamil Virtual Academy, which brought together experts, scholars, and Tamil enthusiasts to discuss the

role of the Tamil Language in emerging technologies, particularly in the era of Artificial Intelligence (AI). The event took place on 8-10th of February 2024, at Chennai Trade Centre, Nandambakkam.

Over 50 scholars from 10 different countries and 8 States of India attended and delivered keynote speeches during the event. A total of 58 sessions were held in this three-day conference. An average of 1800 students and Tamil Computing enthusiasts participated everyday and benefited from the conference. The conference discussed the challenges in developing Natural Language Processing (NLP) tools and Large Language Models(LMM), through Machine Learning (ML) and Artificial Intelligence (AI).

A hackathon was conducted to encourage students and organisations interested in Tamil Computing and the top three best solutions

aimed at tackling challenging problem statements were recognised and awarded. More than a hundred research papers were collected, covering topics such as Language Technology, Machine Learning(ML), Machine Translation(MT). The best 38 articles, which were selected by an expert panel, were compiled and published into a research article titled '**KaniKovai**'. Prizes were given to the top three papers. Scholars wrote essays on the development and future of Tamil Computing covering over the last 25 years, which has been compiled and a souvenir was published in the conference under the title '**KaniThogai**'.

An in-principle MoU was signed with AI Singapore to develop a Large Language Model (LLM) for Tamil Language. The conference was highly beneficial for students, Tamil enthusiasts and promoted the Tamil in the Language Technology platform.

Also, Tamil Nadu has become the first State in India to conduct a conference for language technology, KaniTamil24 – International Tamil Computing Conference with a focus to develop Artificial Intelligence (AI) tools for Tamil Language.

CHAPTER-VII

ICT ACADEMY OF TAMIL NADU (ICTACT)

1. INTRODUCTION

Information and Communication Technology Academy of Tamil Nadu (ICTACT) is an initiative of Government of Tamil Nadu, started as a not-for-profit organization in 2009. The objective of ICTACT is to train the higher education teachers and students, especially in Tier II and Tier III towns, in various technology domains. ICTACT follows a seven-pillar approach namely, faculty development, student skill development, entrepreneurship development, youth empowerment, research & publications, digital empowerment and industry-institute interaction. ICTACT is governed by a Board of Governors with representatives from the Government of Tamil Nadu and the leading companies in the industry.

2. ACTIVITIES

The activities and achievements of ICTACT for the year 2023-24 are:

2.1 Faculty Development

10,435 Faculty members have been trained through 351 Faculty development programmes on various technology and soft skills.

2.2 Skill Development

ICTACT has trained and certified 34,267 graduating students from colleges across the State to improve their employability.

2.3 Entrepreneurship Development

ICTACT has conducted entrepreneurship awareness seminars benefiting 57,642 students from 188 colleges across Tamil Nadu.

2.4 Youth Empowerment

- Organised “New India Learnathon2023” activity for college students to inculcate the habit of self-learning and to make students learn foundations of trending technologies. 2,23,507 students participated and completed 2,78,670 online certifications through this initiative.
- Organised “Make-A-Thon” to promote innovation, foster creativity, and encourage collaboration among students with a passion for coding and technology. Participants used their coding skills to address and solve pressing real-world issues in various domains such as healthcare, education, environment, and more. In total, 484 students participated in Make-A-Thon.
- To celebrate World Youth Skills Day, ICT Academy launched the second edition of the Youth Teckathon 2023. The primary goal of

the Teckathon is to empower graduate students by providing them an opportunity to learn, ideate, and build solutions using UiPath Automation tools. This collaborative effort is between ICT Academy and UiPath Academic Alliance. In total, 328 students participated across Tamil Nadu.

- Organised “Youth Talk 2023” as a part of Youth Leadership Summit 2023 for the students of Tamil Nadu. This initiative is envisioned to develop and exhibit the public speaking skills of student community. Youth Talk is conducted in 7 regions which include Chennai, Coimbatore, Salem, Tiruchirappalli, Kanyakumari, Madurai, and Puducherry. On this occasion, 13,813 students participated in the contest.

2.5 Research and Publications

ICTACT Research Journals

ICTACT publishes 6 peer reviewed International Research Journals on quarterly basis. During the year 2023-24, 233 research papers were published, which included 730 research scholars, scientists, academicians and professionals from 112 institutions worldwide. Among the 233 research papers that were published, 49 originated from 10 different foreign countries. ICTACT Journals are indexed in several international databases & libraries, including UGC-CARE (Group I) list.

- ICTACT Journal on Communication Technology (IJCT)*
- ICTACT Journal on Image and Video Processing (IJIVP)*
- ICTACT Journal on Soft Computing (IJSC)*
- ICTACT Journal on Micro Electronics (IJME)*

- ICTACT Journal on Management Studies (IJMS)
- ICTACT Journal on Data Science & Machine Learning (IJDSML)

**Journals listed in UGC-CARE (Group I)*

Special Issue on Innovation and Technology in FinTech (ITFT – 2023)

ICTACT Journals collaborated with Global Fintech Fest (GFF) 2023 to launch a Special Issue on Innovations and Technology in FinTech (ITFT-2023) on 5th September 2023 at Jio World Convention Centre, Mumbai. The special issue included 13 research papers focusing on emerging trends and innovations in FinTech. These papers were contributed by renowned institutions worldwide, with 3 research papers from foreign countries. The top three papers were recognised and granted with awards and accolades.

ictConnect – EduTech Magazine

ICTACT publishes ictConnect, the EduTech e-magazine dedicated to enriching the lives of diverse readership. Unveiling the extraordinary in the ordinary, it explores the industry, helps one learn about ICT technological advancements, career guidance, skill development, case studies, skill gap analysis, teaching and learning methodologies, and ICT industry trends from experts worldwide. During the year 2023-24, 146 articles were published authored by experts, corporate professionals and industry heads.

2.6 Digital Empowerment

ICTACT is an assessment and certification agency for Pradhan Mantri Gramin Digital Saksharta Abhiyaan (PMGDISHA), a programme of Government of India. 9,90,327 candidates have been assessed and certified for Digital Literacy during 2023-24.

2.7 Industry Institute Interaction

2,929 educators, policy makers and industry experts have participated in the below-mentioned events:

1. BRIDGE – Coimbatore, Madurai, Delhi, Bengaluru, Hyderabad, Guwahati.
2. Youth Teckathon 2023
3. Infocomm India Summit 2023
4. UiPath Academic Leaders Roundtable
5. UiPath Career Webinar Series India 2023
6. Keywords Studios Conclave 2023
7. ICT Academy & iTNT Hub Empowered Researchers from Academia
8. MathWorks Conclave
9. National Conclave on Design Thinking

2.8 New Government Projects Implemented (2023-2024)

Tamil Nadu Police Housing Corporation Ltd.

The ICT Academy of Tamil Nadu conducted an employability skill training programme for 104 women students at Sethupathy Government Arts College, Ramanathapuram. This training enhanced their career prospects.

Tamil Nadu e-Governance Agency

ICT Academy of Tamil Nadu conducted a one day training programme for the EFA operators across the State of Tamil Nadu. 13,773 beneficiaries participated in this training programme.

2.9 Corporate Partners Signed for Content (2023-2024)

ICT Academy has signed MoU with LSSDC (Life Science Skill Development Council), IASC (Instrumentation Automation Surveillance & Communication Sector Skill Council), TOOOPLE, Open Weaver and RedFox. These corporate

partners will help faculty members and students to build industry relevant skills.

2.10 New Corporate Partners Signed for Placement (2023-2024)

ICT Academy has signed MoU with Sightspectrum, Gtech, and GKK Consultants which will support the students on getting placements in good companies.

2.11 Placement Impact

The Placement Impact from April 2023 – March 2024 for students graduating in 2024.

- No. of Companies – 184
- No. of Drives conducted – 318
- No. of Students Placed – 8,905
- Average Salary: Rs.2.4 Lakh per Annum

2.12 New Government Partners Signed

The ICT Academy has signed an MoU with Andhra Pradesh State Skill Development Corporation (APSSDC).

2.13 CSR Projects implemented in 2023-2024

ICT Academy has implemented the CSR projects of the leading organisations such as TNPHC, Microsoft, PayPal, Atos Prayas Foundation, Capgemini, Cognizant Foundation, Globant, AppViewX, Finastra, Inspirisys Systems, Bajaj Finserv, ITC Infotech, Honeywell Hometown Solutions India Foundation, Lenovo, and Mphasis. These projects benefitted students and teachers in Tamil Nadu by providing training on emerging technology skills, entrepreneurship skills and digital teaching skills.

Sl. No.	Name of the Project	Organization/ Department
1	Employability Skill Programme for 104 women students from Sethupathy Government Arts College, Ramanathapuram.	Tamil Nadu Police Housing Corporation Ltd
2	Trained 958 women students under Women Transformation Programme on advanced IT skills.	Capgemini
3	Student Enablement Programme on advanced IT skills for 2,454 students	PayPal
4	Student Transformation Programme on BFSI skills for 629 students	Finastra
5	Cybersecurity Training for 277 Students of Higher Education	Microsoft

6	Tech4All Women Empowerment Programme on advanced IT skills for 1,404 women students	Cognizant Foundation
7	Honeywell Student Empowerment Programme on advanced IT and Cybersecurity skills for 9,141 students	Honeywell Hometown Solutions Foundation India
8	Provided Aspire STEM Education Programme on IT industry readiness for 312 students	ITC Infotech
9	Provided Employability Skill Training on Retail skills for 2,543 students	Bajaj Finserv
10	Advanced IT Skill Training for 40 students	Inspirisys

11	Student Empowerment Programme on advanced IT skills for 59 students	Lenovo
12	Trained 4,552 students on IT, BFSI and KPO skills	Atos Prayas Foundation
13	Provided Advanced IT Skill Training to 539 students on IT, BFSI and KPO skills	Mphasis
14	Provided IT and Digital Teaching techniques to 62 teachers of schools	Globant Technologies
15	Trained 53 graduating women students on advanced IT skill training	AppViewX

Total Beneficiaries Impacted through CSR initiatives: **23,127**.

2.14 Proposed projects in Tamil Nadu for the year (2024-2025)

Sl. No.	Name of the Project	Organization/ Department
1	ICT Academy has taken the initiative to train 10,000 youth in Nagapattinam and nearby districts in Tamil Nadu on employability skills.	Chennai Petroleum Corporation Limited (CPCL)
2	To enhance the awareness of the school students and empower them with knowledge of possible career opportunities ICT Academy proposes to counsel 15,000 school students.	Rural Electrification Corporation Limited (REC)
3	To Train 200 underprivileged UG final year students on advanced tech skills	TagIT

4	To train 7,500 graduating students in engineering, arts and science colleges on IT, BFSI, KPO and BPO skills. This will be trained over 3 years.	Capgemini
5	Establishing Centre of Excellence for Women Empowerment and Centre of Excellence for Youth Empowerment in Colleges for training 5,950 students in cybersecurity, advanced IT, and sustainability skills	Honeywell Hometown Solutions India Foundation
6	IT & non-IT employability skills training to 48,000 underprivileged students from higher education institutions.	Infosys Foundation

7	<p>Training on Electronics System Design Manufacturing and Emerging Technologies for 11,800 faculty members of engineering, arts & science, polytechnic and ITI institutions.</p>	<p>Ministry of Electronics and Information Technology, Govt. of India.</p>
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CHAPTER-VIII

TAMIL NADU TECHNOLOGY HUB (iTNT Hub)

1. Introduction

Tamil Nadu has been one of the leading States in driving India's economic growth. Industrial development, technology adoption, high academic focus, and a strong entrepreneurial mindset are some of the key factors in the State's growth and success. In order to facilitate innovation-led entrepreneurship as an enabler for contributing to the economy of the State, the Government of Tamil Nadu established Tamil Nadu Technology Hub (iTNT Hub).

iTNT Hub, the India's First Innovation Hub was established by the State Government with a focus on Deep Tech and Emerging Tech and inaugurated by the Hon'ble Chief Minister of Tamil Nadu on 15th May 2023. iTNT Hub is

funded by the Government of India, Government of Tamil Nadu, and prominent industry players.

As of date, iTNT Hub has supported 100 startups, mentored 1,100+ entrepreneurs, onboarded 4,000+ researchers and is working closely with the portfolios of 30+ Deep Tech and Emerging Tech Investors. It has signed MoUs with 51 technical higher education institutions and global IT ecosystem players in Australia and Switzerland to promote Deep Tech & Emerging Tech entrepreneurship and industry-academia interactions.

2. Vision

To harness Tamil Nadu's vast tech capability and make TamilNadu amongst the top 10 innovation hubs globally.

3. Mission

To build a thriving global innovation ecosystem by strengthening the Research,

Development & Innovation landscape, Industry-academia collaboration and international partnerships.

4. Objectives

The objectives of iTNT Hub are as below:

- 4.1 Support innovation-led start-ups in their incubation, acceleration, infrastructural and other services with a primary focus on deep tech applications.
- 4.2 Enabling corporate partnerships and support by providing defined roadmaps and responsibilities.
- 4.3 Providing high technology equipments like Fab Lab, 3D Printing and various types of IR 4.0 devices.
- 4.4 Supporting start-ups in creating value in the IT and Deep Tech space.
- 4.5 Creating a Digital Market Access Portal to provide services and facilitate

interaction between different stakeholders.

- 4.6 Facilitating start-ups to assist the Government as a customer by application of Deep Tech to solve problems of public-policy and good governance.

5. Sectors in Focus

The iTNT Hub focuses on supporting startups in the Creative Tech, Climate Tech, Space Tech, Robotics, Health Tech, High Value SaaS sectors and emerging technologies like Artificial Intelligence (AI), Machine Learning (ML), Deep Learning, Natural Language Processing (NLP), Augmented Reality (AR), Virtual Reality (VR), IoT and Edge Computing.

6. Core Initiatives

6.1 Incubation

Through the incubation initiative, iTNT Hub aims at shaping ideas & innovations into groundbreaking startups. The iTNT Hub offers technology development support, architecture and scale-up support, Fab Lab and infrastructure for rapid prototyping. It also helps entrepreneurs secure seed funds in developing Deep Tech and Emerging Tech companies, and provide essential backing through seed funding and mentorship.

6.2 BEACON

Business Exploration & Acceleration Creation of New Ventures (BEACON) is an 8-week long bootcamp series for entrepreneurs and researchers who are in the Idea Validation stage. These intensive bootcamps define, validate and refine their business concepts

through a series of engaging workshops and personalised mentorships by experts.

6.3 PATHFINDER

Promoting Advanced Technologies & Innovations by Nurturing Entrepreneurs (PATHFINDER) focuses on the next-generation AI technologies and applications and supports startups on a cohort basis. This sector specific programme supports AI, IoT and AVGC startups in their validation, development and fundraising journey over a period of 6–18 months.

6.4 Acceleration

Through the acceleration initiative, iTNT hub aims to increase the competitiveness of Tamil Nadu start-ups through Talent, Capital and Market Access. Start-ups undergo structured, tailor made programmes aimed at optimising their existing technology, operations, increasing their customer base, accessing investors making them investment ready and at expanding to other regions.

6.5 Innovation Network

Through this initiative, iTNT Hub aims to transform the Research & Development ecosystem to Research, Development & Innovation ecosystem, by facilitating the translation of research-based innovation to enterprises. The Innovation Network also harnesses a rich academic talent pool aligning it with the specific demands of the industry, propelling towards innovation excellence and the forefront of the Deep Tech landscape.

6.6 Venture Studio

Through this initiative, iTNT Hub seeds projects that have a commercial opportunity for Public Sector Innovation or Commercialisation at large. The projects are then spun out as Entrepreneurs-in-Residence ventures to fuel the development of new ventures in Tamil Nadu. Technologies could also be transferred from other ecosystems, leveraged to build ventures.

6.7 Fab Lab & Design Studio

The Fab Lab & Design Studio aims to refurbish the Indian design landscape. It prepares innovators and startups for a transformative change in design process, transcending traditional silos. The services offered will assist them in building elegant products for rapid prototyping and small batch production for wear & tear testing.

6.8 International Pavilion

Through this initiative, iTNT Hub aims to support international start-ups to collaborate with startups in Tamil Nadu. iTNT Hub provides the requisite support to startups through the following programmes:

- Indian Market Literacy Programme (Online)
- Market Exposure Programme (7-10 days)
- Market Entry Programme (3 months)

7. Other Initiatives of iTNT Hub

iTNT Hub implements the following initiatives:

7.1 Joint Innovation Gateway for Synergistic Startup Academic - Industry - Investor Work (JIGSAW™)

The mission for JIGSAW is primed towards the theme 'Synergistic Collaboration of Academia, Industry, Startups and Investors Fostering Transformative Innovation'. The JIGSAW involves the following:

- Solving real time industry problems
- Identifying innovative resources
- Co-creating solutions with partners.

7.2 Corporate Innovation Challenges

These challenges help the industry source homegrown R&D solutions and academia to collaborate with corporate in real-time. With co-creation as its central theme, this initiative

focuses on building a robust Research, Development & Innovation landscape in Tamil Nadu.

7.3 CoEs for Emerging sectors

Centres of Excellence will be established in the focus sectors of Emerging and Deep Tech. The first CoE will be established for AI, followed by a CoE for Animation, Visual Effects, Gaming and Comics and Extended Reality (AVGC) for synergistic collaboration, fostering transformative innovation.

7.4 Emerging and Deep Tech Funds

Supporting up to 20 Emerging and Deep Tech start-ups in the financial year 2024-25 through the iTNT Hub, Deep Tech Fund will accelerate their market entry, to support their development in the crucial early stages of business.

7.5 Corporate Incubation and Acceleration programmes

Acceleration programmes aim to fast-track the entrepreneurial growth of Emerging & Deep Tech start-ups through appropriate connections, mentorship and guidance. 100 Tech Scaleups are identified each year and supported through a market access programme.

8. Expansion to Tier 2 & Tier 3 cities

To support innovation in the Emerging and Deep Tech sectors in Tier 2 & 3 cities and to make entrepreneurship accessible across geographies, two MoUs have been signed with Anna University to set up iTNT Hubs in a hub-and-spokemodel in their regional colleges in Tiruchirappalli and Madurai.

9. UMAGINE 2024

iTNT facilitated the Innovation Arena at “UMAGINE 2024” to showcase Deep and Emerging Tech start-ups from Tamil Nadu. The

arena showcased 64 startups, witnessed 6 product launches, 122 one-to-one investor connections by engaging 60 startups and 33 investors. To promote innovation, Hon'ble Minister for Youth Welfare and Sports Development launched the JIGSAW™ portal.

Dr. Palanivel Thiaga Rajan

Minister for Information Technology and
Digital Services



UmagineTN 2024 Inaugural Function



Thiru. M.K. Stalin, the Hon'ble Chief Minister of Tamil Nadu inaugurated the Information Technology Building (IT Tower) built at an estimated cost of Rs.59.57 Crore at Navalpattu, Tiruchirappalli district on 17.02.2024 on behalf of the Department of Information Technology and Digital Services through video conferencing from Secretariat. In this event, Dr. Palanivel Thiaga Rajan, Hon'ble Minister for Information Technology and Digital Services Department, Thiru.Dheeraj Kumar, I.A.S., Additional Chief Secretary to Government, Information Technology and Digital Services Department, Dr.S.Aneesh Sekhar, I.A.S., Managing Director, Electronics Corporation of Tamil Nadu Limited were participated



Public Free Wi-Fi Scheme was launched by the Hon'ble Chief Minister of Tamil Nadu on 23.02.2024 for public use.



iNTNT Hub signed MoUs with Anna University Regional Campus, Madurai, and Tiruchirappalli to nurture innovation in tier 2 and tier 3 cities, partnering with 26 academic institutions, integrating 4081 researchers and 175 startups to drive inclusive growth.



Information Technology Department aims to enable Government Departments to digitalize their operations with a vision to provide transparent and Citizen-Centric Governance. The Tamil Nadu Digital Transformation Strategy document was released by Hon'ble Chief Minister on 02.11.2023.



Tamil Nadu Technology (iTNT) Hub was inaugurated by Hon'ble Chief Minister of Tamil Nadu on 15th May 2023.



TNeGA received the "Chief Minister's Best Practices Award" for 2023 from the Honorable Chief Minister of Tamil Nadu.



Diploma in Tamil Teaching course was launched by the Hon'ble Chief Minister of Tamil Nadu on 26.09.2023.



Hon'ble Minister, IT & DS delivering presidential address during KaniTamil24 Conference,
08.02.2024



Dr. Palanivel Thiaga Rajan, Hon'ble Minister for Information Technology and Digital Services Department, Government of Tamil Nadu graced the stage as the chief Guest for ICT Academy BRIDGE 2023, 51st Edition on 07th September 2023 at Hotel Le Meridian, Coimbatore. Hon'ble Minister shared his valuable thoughts to the academic leaders and faculty members on effectively bridging the gap between student aspirations and industry needs.



A State of Art Network Operation Center to monitor BharatNet Point of Presence (12525 Gram Panchayat & 388 Blocks) across the State was established at a cost of Rs.43.46 Crore in Chennai

