



CONSOLIDATED REPORT



STAGE 1



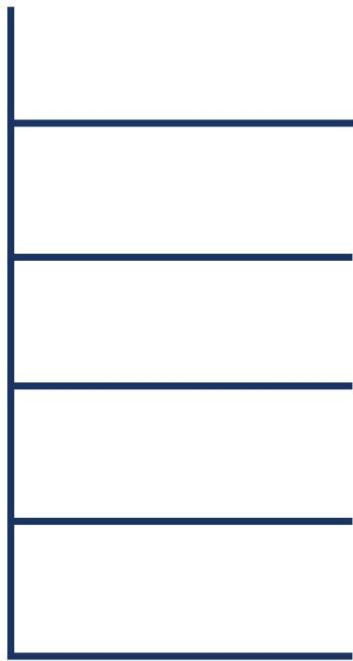
STAGE 2



STAGE 3

100% Completed

STAGE 1 - TNIIC 2019



32 Districts

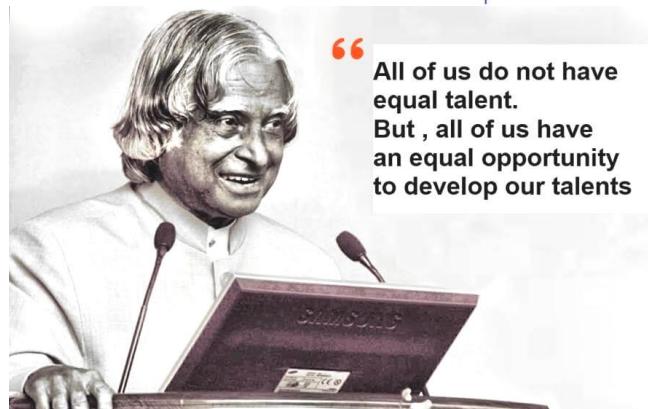
494 Schools

1471 Students

496 Teachers

120+ Atal Tinkering Labs

COMPLETED

**Special Thanks to**

- 1. Principal Secretary, M.S.M.E Department** **Dr. Rajendra Kumar, I.A.S**
& Director, EDII-TN (Present)
- 2. Principal Secretary, School Education Dept.** **Th. Pradeep Yadav, I.A.S**
- 3. Director, School Education Department** **Dr. S.Kannappan**
- 5. Additional Director, EDII-TN** **Tmt. R.V.Shajeevana**
- 6. Joint Director (NSS)** **Th. M.Vasu**
- 7. Deputy Director (PMO) , EDII-TN** **Th. R.Shiva Shankar**
- 8. Chief Education Officers of all the Districts of Tamil Nadu**
- 9. Deans, Hub Coordinators and Field Coordinators of EDII-TN IEDP Hubs of Chennai (AU-CEG), Coimbatore (AU-RCC), Madurai (Thiagarajar College of Engineering), Karaikudi (Alagappa University), Salem (Sona College Of Technology), Trichy (AU UCE-BIT), Tirunelveli (AU-RCT) and Villupuram (AU UCEV)**
- 10. To our Partnering Startups – Infinite Engineers, Warhorse, MADIEE, PiJam Foundation, SP Robotic Works, E21 and Getset Ventures** – who have conceptualized the programme and to the District Captains, the College Students who stood as the role models and mentors for the School Students.
- And to all the District Education Officers, District Eco Coordinators, Headmasters/Principals, Teachers, Atal Tinkering Lab-Incharges and all the supporting staff** in organizing the **TAMIL NADU ILAM INNOVATORS CHALLENGE 2019**, which followed the footsteps of our beloved former President Late Dr.A.P.J Abdul Kalam in giving equal opportunities to all the students of Tamil Nadu to develop their 21st Century Skills to become the Innovators and Entrepreneurs of Future India.

Pillar of Support for TNIIC 2019

**Thank you
Th. M.Vasu,
Joint Director (NSS),
School Education
Department, Tamil Nadu**



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TAMILNADU
INNOVATORS

இளம்
CHALLENGE

TAMIL NADU ILM INNOVATORS CHALLENGE 2019

ABOUT THE PROGRAMME:

- **Tamil Nadu Ilam Innovators Challenge 2019** is jointly organized by Entrepreneurship Development and Innovation Institute (EDII-TN) and School Education Department, Govt. of Tamil Nadu with partnering Startups; **Infinite Engineers, Warhorse, MADIEE, PiJam Foundation, SP Robotic Works, E21 and Getset Ventures.**
- **TNIIC 2019** is a State Level Innovation Challenge focussed on inculcating the spirit of Innovation and developing Entrepreneurial Skills (21st Century Skills) amongst the School Students (8th to 12th) across the State, as per the vision of the Tamil Nadu Startup and Innovation Policy (2018-23) recently launched by Honourable Chief Minister of Tamil Nadu.
- It is conducted in 2 Phases – 1st Phase (April to July) Train The Trainers Programme for College Students to be trained by Startups to be the mentors and trainers for School Students.
- 2nd Phase (August to January) – 3 Stages – For School Students of 8th to 12th Standard
 - o **Stage 1** – District Level Selections through Gamified Modules in all the Districts of Tamil Nadu.
 - o **Stage 2** – Hub/Zonal Level 4 Day Residential Training Programme at Chennai, Coimbatore, Trichy, Madurai and Tirunelveli.
15 Teams/Schools will be awarded cash awards of Rs.10,000/- each
 - o **Stage 3** – State Level Finals – One Day Programme at Chennai.
5 Teams/Schools will be awarded a State Level Fellowship of Rs 1,00,000/- each and their corresponding District Captains will be awarded a Credit Voucher for Rs10,000/- each.
- More than 500 Schools have registered for TNIIC 2019, in which 60% of the participation is from Government and Government Aided Schools, we have also reached out to Tribal Residential Schools.

A MEMORANDUM OF UNDERSTANDING (MoU) was signed between EDII-TN and the School Education Department, Government of Tamil Nadu on 27.06.2019 (International MSME Day).

- To Plan and Organize the Tamil Nadu Ilam Innovators Challenge in all the Educational districts of Tamil Nadu to inculcate the spirit of innovation and entrepreneurial skills in school students.
- To create awareness about Makerspaces and Atal Tinkering Labs, help in setting up and maintenance.
- To train the teachers in understanding the Startup culture, Innovation and Entrepreneurship and update the teaching methods to support the students.
- To create, set up and maintain Junior Entrepreneurship Cells (E-Cells) in schools/makerspaces and establish a learning/mentoring relationship with College E-Cells
- and all other programmes that benefit the students and teachers.



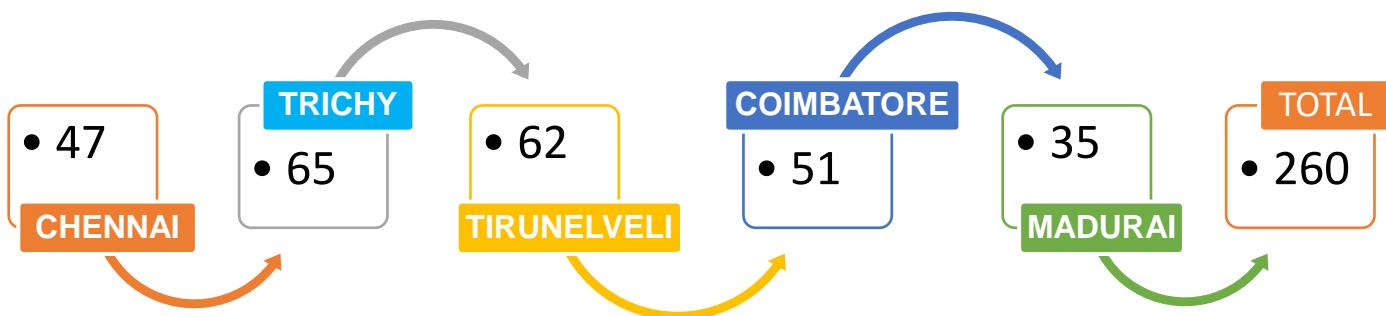
About EDII-TN - Entrepreneurship Development and Innovation Institute is a Non-Profit Autonomous Society established by the Government of Tamil Nadu in 2001. Collaborating with corresponding knowledge partners, EDII-TN conducts various training programs, gatherings, mentoring sessions from industry experts and stake holders for Students, Graduates, Startups, MSMEs and Entrepreneurs. EDII-TN has provided training to around 2.33 Lakh entrepreneurs in the state right from its establishment.

EDII-TN is also the nodal agency for implementing the Tamil Nadu Startup and Innovation Policy (2018-23) to achieve the mission and objective of making Tamil Nadu the best Knowledge Capital and Innovation Hub in the Country. The Policy will help create, support and nurture the vibrant startup ecosystem and the culture of innovation and entrepreneurship in Schools and Colleges as well.

Since 2016-17, EDII-TN has been implementing an exclusive policy for Colleges of Engineering, Arts & Science background, Polytechnic Colleges and Industrial Training Institutes (ITIs') called **Innovation and Entrepreneurship Development Programme (IEDP)**, having created and registered more than 300+ Active Entrepreneurship Cells (E-Cells) in Colleges.

TRAIN THE TRAINERS (T.T.T) Programme, which initiates the First Phase (May – July, 2019) of the Tamil Nadu Ilam Innovators Challenge 2019, was conceptualized to develop a nurturing relationship between Schools and Colleges. The College Students were trained by the partnering Startups – Infinite Engineers and Warhorse, on how to mentor school students and facilitate Stage 1 of TNIIC 2019 – District Level Selections of School Students in each of the 32 Districts across the State.

The T.T.T Programme was conducted in 5 Hubs – A Total of 260 College Students were trained, out of which 104 College Students were selected as District Captains for their respective Districts. Stage 1 of TNIIC 2019 was planned to be conducted as 52 Batches in 32 Districts, which means each batch will be facilitated by 2 District Captains.



- **Chennai** (28.05.2019) Organized by EDII-TN
- **Trichy** (11.06.2019) Organized by EDII IEDP Hub – Anna University- UCE-BIT Campus, Tiruchirapalli.
- **Tirunelveli** (02.07.2019) Organized by EDII IEDP Hub – Anna University, Regional Campus, Tirunelveli.
- **Coimbatore** (12.07.2019) Organized by EDII IEDP Hub- Anna University, Regional Campus, Coimbatore.
- **Madurai** (22.07.2019) Organized by EDII IEDP Hub – Thiagarajar College of Engineering, Madurai

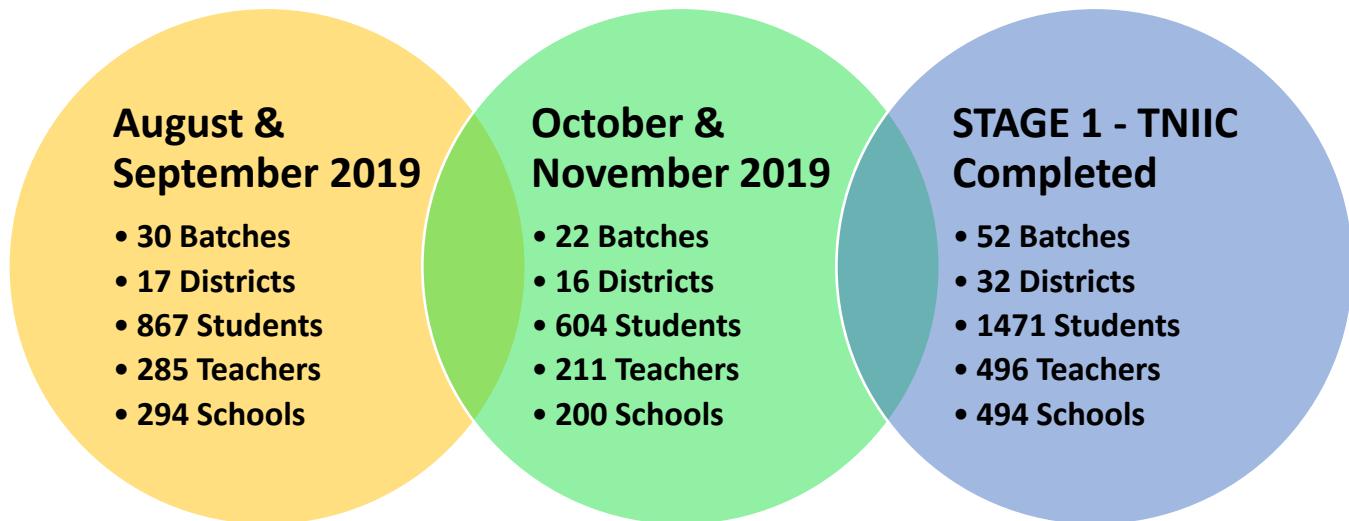
The Selected District Captains were coordinated and supported by Field Coordinators of EDII IEDP Hubs of Chennai, Coimbatore, Salem, Madurai, Trichy, Tirunelveli and Villupuram along with Project Executives of TANSIM/EDII-TN.

The list has been uploaded on Official Website (www.tniic.in) and Facebook Pages (www.facebook.com/tniic2019) of TNIIC 2019.

STAGE 1 – DISTRICT LEVEL SELECTIONS has been conducted in Two Phases

1st Phase – August and September 2019

2nd Phase – October and November 2019



Stage 1 of Tamil Nadu Ilam Innovators Challenge 2019 has been developed as a Gamified Module for District Level Selection of School Students (8th to 12th Standard) by Infinite Engineers and Warhorse, supported by M.A.D.I.E.E, E21 – IIT-Madras and Getset Ventures.

Stage 1 was conducted in all the **32 Districts of Tamil Nadu** with the support of **School Education Department** (Under the guidance of **Th.M.Vasu, Joint Director (NSS)** and **Chief Education Officers (CEOs)** of each District) and EDII IEDP Hubs. A total of **1471 Students** and **496 Teachers** from **494 Schools** were trained in 21st Century Skills and out of which **159 Best Performing School Teams (468 Students)** were selected for Stage 2 – Four Day Residential Training Workshop planned to be conducted at Zonal/Hub Level.

The Gamified Module tested the Students' Ability and Performance in the **4C's, which are the most needed 21st Century Skills for the Students**

- **Communication** - Sharing Thoughts, Ideas, Questions and Solutions
- **Collaboration** - Working Together to reach a Goal
- **Creativity** - Trying New Approaches and Innovative Solutions
- **Critical Thinking** - Looking at Problems in a New Way across all subject disciplines and taking precise and timely decisions.

Sl. No.	District	Date Conducted	No.of Batches	No of Schools /Teams	No.of Students	No. of Teachers	Teams Selected for Stage 2
1	CHENNAI	14.08.2019 & 16.08.2019	2	20	58	21	6
2	PERAMBALUR	19.08.2019	2	20	60	19	6
3	COIMBATORE	20.08.2019	2	17	51	15	6
4	TIRUNELVELI	20.08.2019	2	17	46	17	6
5	TIRUPPUR	21.08.2019	2	24	70	22	6
6	RAMANATHAPURAM	22.08.2019	2	18	53	16	6
7	THANJAVUR	26.08.2019	2	19	55	18	6
8	MADURAI	26.08.2019 & 27.08.2019	2	22	66	22	6
9	CUDDALORE	27.08.2019	2	15	42	14	6
10	THENI	28.08.2019	1	11	33	11	3
11	KANCHIPURAM	28.08.2019	1	11	33	11	3
		11.10.2019	1	11	31	11	3
12	TRICHY	28.08.2019	2	17	51	17	6
13	SALEM	29.08.2019 & 30.08.2019	2	23	68	23	6
14	THOOTHUKUDI	30.08.2019	2	18	54	17	6
15	KANIYAKUMARI	03.09.2019	1	10	31	10	3
16	VIRUDHUNAGAR	04.09.2019	2	20	60	18	6
17	THIRUVALLUR	06.09.2019	1	12	36	14	3
18	NAMAKKAL	17.10.2019	2	14	42	15	6
19	TIRUVANNAMALAI	17.10.2019	1	10	30	10	3
20	DHARMAPURI	18.10.2019	2	17	50	20	6
21	THIRUVARUR	21.10.2019	1	13	38	13	3
22	NAGAPATTINAM	22.10.2019	2	14	41	15	6
23	VILLUPURAM	23.10.2019	1	12	36	14	3
24	SIVAGANGAI	23.10.2019	1	9	28	9	3
25	DINDIGUL	24.10.2019	2	18	53	18	6
26	PUDUKKOTTAI	25.10.2019	2	15	45	15	6
27	ERODE	29.10.2019	2	19	57	20	6
28	KRISHNAGIRI	30.10.2019	1	10	30	10	3
29	ARIYALUR	06.11.2019	1	7	21	6	4
30	VELLORE	07.11.2019	1	9	27	9	3
31	KARUR	13.11.2019	1	14	45	18	5
32	NILGIRIS	14.11.2019	1	8	30	8	3
Total			52	494	1471	496	159

Sl. No.	District	Date Conducted	District Captain's Name	College / Institution Name
1	CHENNAI	14.08.2019 & 16.08.2019	Joshua Arputharaj J	Kings Engineering College
			Bhavani.B	Quaid-E-Millath Govt college for women.
			Divya Dharshini.K	Annai Vailankannis College of Engineering
			Raj Kumar L	J.H.A Agarsen College
2	PERAMBALUR	19.08.2019	T Prakash	University College of Engineering, BIT Campus, Anna University, Trichy-24
			Ajeeth K	M A M School of Engineering
			Vijayakumar V	University College of Engineering, BIT Campus, Anna University, Trichy-24
			Abishek S	Dhanalakshmi College Of Engineering, Perambalur
3	COIMBATORE	20.08.2019	D.Bhuvaneswari	Avinashilingam University, Coimbatore
			Susma Albert coraya	Avinashilingam University, Coimbatore
			R.Vasanthkumar	Sri Eshwar College Of Engineering,Coimbatore
			P.Vijaya Anbarasan	Sri Eshwar College Of Engineering,Coimbatore
4	TIRUNELVELI	20.08.2019	Gomathi Kamalam T	Scad College Of Engineering And Technology
			Abishek A Chazhoor	Francis Xavier Engineering College,Tirunelveli
			M. Indhuja Devi	Scad College Of Engineering And Technology
			Saranya K	Sri Parasakthi College For Women, Courtallam
5	TIRUPPUR	21.08.2019	Lavanya R	SNS College of Engineering, Coimbatore
			Nivedha. D	SNS College of Engineering, Coimbatore
			Varshini G	KGiSL Institute of Technology,Coimbatore
			Selva Preethi.K	NANDHA Engineering College,Perundurai

6	RAMANATHAPURAM	22.08.2019	Richard Jesu Daniel	Francis Xavier Engineering College,Tirunelveli
			M.Ragavendra	Sankar Polytechnic College ,Sankarnagar
7	THANJAVUR	26.08.2019	Keerthana.T	Kalasalingam Academy of Research and Education
			M. Madhumitha	M A M School of Engineering
			Raja R	Bharathidasan University
			Moohammed Sattar B	Saranathan College of Engineering
8	MADURAI	26.08.2019 & 27.08.2019	Logesh Kumar P	Thiagarajar College of Engineering
			Muthu Vignesh N	Thiagarajar College of Engineering
			S Sivapriya & Reeshman Fathima R	Thiagarajar College of Engineering
			T Gokul	Vivekananda College of Engineering
9	CUDDALORE	27.08.2019	Alagesan R	M.Kumarasamy College Of Engineering, Karur
			Prakash B	M A M School Of Engineering
			Praveen Kumar G	M.Kumarasamy College Of Engineering, Karur
			Balakrishnan A	Adhi College Of Engineering And Technology, Kanchipuram
10	THENI	28.08.2019	Logesh Kumar P	Thiagarajar College of Engineering
			Muthu Vignesh N	Thiagarajar College of Engineering
			S Sivapriya & Reeshman Fathima R	Thiagarajar College of Engineering
			T Gokul	Vivekananda College of Engineering
11	KANCHIPURAM	28.08.2019	Jayshree R	SDNB Vaishnav College for Women
			Bhavani.B	Quaid-E-Millath Govt college for women.
		11.10.2019	Chari S.K	Prince Shri Venkateshwara Arts and Science College
			Sandeep Bhaskaran	SRM Valliammai Engineering College
12	TRICHY	28.08.2019	Prasanth R	Saranathan College of Engineering
			Dania Suresh	Cauvery College for Women
			M.Raja Mohamed	University College of Engineering, BIT Campus, Anna University, Trichy-24
			J.Jenifer Roys	Holy Cross College, Trichy – 2

Sl. No.	District	Date Conducted	District Captain's Name	College / Institution Name
13	SALEM	29.08.2019 & 30.08.2019	Vishnu Raj Saravanan	Sona College of Technology, Salem
			S.Kavichelvan	Sona College of Technology, Salem
			N.Hari Krishna	Sona College of Technology, Salem
14	THOOTHUKUDI	30.08.2019	T.Madhu Sree	Anna University Regional Campus Tirunelveli
			V. Siva Subramanian	V. O. Chidambaram College, Tuticorin
			Abinaya.C	Francis Xavier Engineering College, Tirunelveli
			Kanaga Valli	Annammal College of Education for Women, Thoothukudi
15	KANIYAKUMARI	03.09.2019	G.Pooja	Amrita College of Engineering and Technology, Nagercoil
16	VIRUDHUNAGAR	04.09.2019	Akilan M	Ramco Institute of Technology, Virudhunagar
			Anantha Balan A	St. Mother Theresa Engineering College, Tuticorin
			Santhana Kumar A	Ramco Institute of Technology, Virudhunagar
			Hidayath Muzammil	National College of Engineering, Maruthakulam
17	THIRUVALLUR	06.09.2019	Yaswanth A	Panimalar institute of technology
			Karthik S	Panimalar institute of technology
18	NAMAKKAL	17.10.2019	Vishnu Raj Saravanan	Sona College of Technology, Salem
			S.Kavichelvan	Sona College of Technology, Salem
19	TIRUVANNAMALAI	17.10.2019	Joshua Arputharaj J	Kings Engineering College
			Raj Kumar L	J.H.A Agarsen College
20	DHARMAPURI	18.10.2019	Vishnu Raj Saravanan	Sona College of Technology, Salem
			S.Kavichelvan	Sona College of Technology, Salem
21	THIRUVARUR	21.10.2019	Prakash B	M A M School of Engineering
			R. Varatharaj	M A M School of Engineering
22	NAGAPATTINAM	22.10.2019	P Yuvaraja	E.G.S. Pillay Engineering College
			P Prakashmoorthy	E.G.S. Pillay Engineering College
23	VILLUPURAM	23.10.2019	Joshua Arputharaj J	Kings Engineering College
			Sandeep Bhaskaran	Valliammai Engineering College

24	SIVAGANGAI	23.10.2019	M J Sivasathya	Pandian Saraswathi Yadav Engineering College, Sivagangai
			Vanjinathan P	Pandian Saraswathi Yadav Engineering College, Sivagangai
			J Vigneshwaran	Pandian Saraswathi Yadav Engineering College, Sivagangai
			M Lingaraj	Pandian Saraswathi Yadav Engineering College, Sivagangai
25	DINDIGUL	24.10.2019	M J Sivasathya	Pandian Saraswathi Yadav Engineering College, Sivagangai
			Vanjinathan P	Pandian Saraswathi Yadav Engineering College, Sivagangai
			J Vigneshwaran	Pandian Saraswathi Yadav Engineering College, Sivagangai
			M Lingaraj	Pandian Saraswathi Yadav Engineering College, Sivagangai
26	PUDUKKOTTAI	25.10.2019	M J Sivasathya	Pandian Saraswathi Yadav Engineering College, Sivagangai
			Vanjinathan P	Pandian Saraswathi Yadav Engineering College, Sivagangai
			J Vigneshwaran	Pandian Saraswathi Yadav Engineering College, Sivagangai
			M Lingaraj	Pandian Saraswathi Yadav Engineering College, Sivagangai
27	ERODE	29.10.2019	Dhaarani.M	P.K.R Arts College For Women, Gobi
			S.Dhivya prabha	P.K.R Arts College For Women, Gobi
			K.Sobica	P.K.R Arts College For Women, Gobi
			Shamrutha K	P.K.R Arts College For Women, Gobi
28	KRISHNAGIRI	30.10.2019	S.Kavichelvan	Sona College of Technology, Salem
29	ARIYALUR	06.11.2019	EDII-TN Team of Suhas Darsi and Vinoth.M	EDII-TN, Chennai
30	VELLORE	07.11.2019	Sandeep Bhaskaran	SRM Valliammai Engineering College
31	KARUR	13.11.2019	EDII-TN Team of Suhas Darsi and Vinoth.M	EDII-TN, Chennai
32	NILGIRIS	14.11.2019	SHIBI.R	KIT-Kalaignar Karunanidhi Institute of Technology
			Gopinath.A	KIT-Kalaignar Karunanidhi Institute of Technology

District Level Selections

District Level Selections

The programmes were coordinated by Th.V.Anburaja, Training Coordinator, Th. D.Suhas, Project Executive, TANSIM/EDII-TN and Th. Daniel Prabhakaran, IEDP Project Executive, TANSIM/EDII-TN along with the District Captains, i.e College E-Cell Students who were trained to be the mentors and facilitators for Stage1 through the **Train The Trainers** Programme conducted during May-July. 260 College Students who are active E-Cell members participated in the Train The Trainers Programmes held at Chennai, Trichy, Tirunelveli, Coimbatore and Madurai.

Out of the 260 participants, 104 were selected as District Captains for their respective Districts. They are assigned this role to facilitate the training of School Students in Stage 1 and mentor them throughout their journey in the later stages till the State Level Finals.

EDII-IEDP Hubs of Anna University Trichy, Tirunelveli, Coimbatore and Villupuram, Karaikudi Alagappa University, Madurai Thiagarajar College of Engineering and Salem Sona College of Technology supported the programmes in making all the arrangements for the Train The Trainers Programmes and coordinated Stage 1- District Level Selections at each of the 32 Districts completed.

The Training Kits were provided by the Infinite Engineers team and the gamified module for selection was developed by the team of Infinite Engineers, Warhorse, MADIEE and Getset Ventures supported by E21- IIT-M.

The Scoring Sheets evaluate the performance of the Students based on their Communication, Creativity, Collaboration and Critical Thinking through the Minefield Game and S.T.E.M Challenge of Building the Catapult.

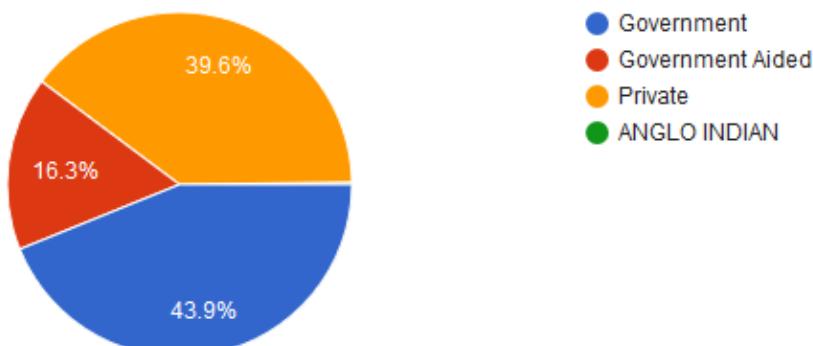


REGISTRATION – 09:00 AM to 10:00 AM

Registrations were made online through www.tniic.in website. The School Education Department supported EDII-TN in communicating with the School Headmasters/Principals of all the Government, Government Aided, Matric, CBSE, ICSE and even Anglo Indian Schools. Through various letters and Emails sent through EDII-TN to CEO Office of each district and from CEO Offices to DEO and BEO Offices, the communications reached many villages and towns in the State.

Government, Government Aided or Private?

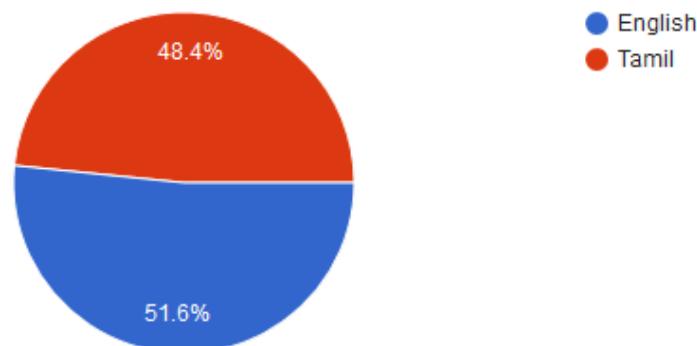
465 responses



- Government
- Government Aided
- Private
- ANGLO INDIAN

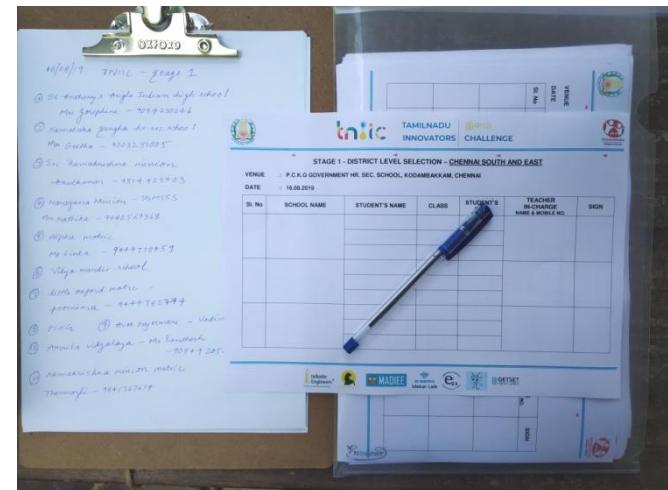
43.9 % - Government Schools and 16.4% Government Aided Schools**48.5% of the Total Registered Schools are Tamil Medium Schools****Medium of Education**

465 responses



- English
- Tamil

On Spot Registrations were also encouraged and the sheets also served as Attendance Registers for each District.



INAUGURAL AND VALEDICTORY SESSIONS –**DISTRICT CEOs and DEOs as Chief Guests**

In each programme, the Inaugural and Valedictory Sessions were attended by the District Chief Education Officer (CEO) and District Education Officers (DEO) of School Education Department, Tamil Nadu, who signed and distributed the Certificates to the School Students.

The District CEOs, DEOs, Eco Coordinators and all the staff in the District Education Office supported the programme right from Registrations, Selecting the School Venue, Communication with the Schools, Signing the Certificates and Distribution to the Students.



Th. T.Rajendran, C.E.O, Chennai District inaugurating the Chennai District - Stage 1 District Level Selections at P.C.K.G Government Hr. Sec. School, Kodambakkam, Chennai on 16.08.2019, whose ATAL Tinkering Lab is supported by Learning Links Foundation.



Tmt. R.Thiruvalar Selvi, C.E.O, Tiruvallur District, inaugurating the Last Batch, before Quarterly Exams started, at Sri Venkateswara Matric Hr Sec School, Ambattur, Tiruvallur District on 06.09.2019.

The Certificates in most of the districts were signed by the CEOs themselves and in some unavoidable cases, as the CEOs were not available due to Counselling and Meetings, the Certificates were signed and distributed by DEOs and ADPCs.



Th. Ramakrishnan.M,

C.E.O, Thanjavur

District signed and distributed the certificates to the students on 26.08.2019 at Government Girls Hr Sec School, Thanjavur.



Th. Swaminathan, CEO

Madurai signed and distributed the certificates to the School Students at Sivakasi Nadar Matriculation Hr. Sec. School, Madurai on 27.08.2019



Th. M. Raman, CEO,

Kaniyakumari District signed and distributed the certificates to the School Students at SLB GHSS, Nagercoil on 03.09.2019.



Th. Thiagarajan, C.E.O,
Thiruvarur District signed and distributed the certificates to the Students on 21.10.2019 at RMSA Hall, CEO Office, Thiruvarur. The programme was coordinated successfully by **Th. Natanam, District Eco Coordinator, Thiruvarur.**



Th. Gunasekaran,
C.E.O, Nagapattinam
District signed and distributed the certificates to the Students on 22.10.2019 at EGS Pillay Engineering College, Nagapattinam.



Th. Munusamy,
CEO, Villupuram
District signed and distributed the certificates to the students on 23.10.2019 at CEO Office, Villupuram.



Tmt. S. Vanaja, C.E.O,

Pudukkottai District

signed and distributed the certificates to the Students on 25.10.2019 at Brahadambal Govt Hr Sec School, Pudukkottai. The Programme was supported by IEDP Hub of Alagappa University, Karaikudi.



Th. Gopalakrishnan, DEO,

Chennai North signed and distributed the Certificates to the students on 14.08.2019 at Kaligi Ranganathan Montford Matric Hr Sec School, whose ATAL Tinkering Lab is supported by Infinite Engineers.



Th. Selva Kumar, DEO,

Vriddhachalam signed and distributed the certificates to the students on 27.08.2019 at Government Girls Hr Sec School, Vriddhachalam.



Tmt. L. Sumathi, DEO, Salem delivered a very motivational speech through song and distributed the certificates to students on 29.08.2019 at Fort Govt Girls Hr Sec School, **supported by Th. Ganesh Murthy, CEO Salem.**



Th. Laksmanaswamy, DEO, Thiruchendur & Th.Bensar, District Eco Coordinator distributed the Certificates that are signed by CEO, Thoothukudi to students on 30.08.2019 at Annamal College for Women, Thoothukudi.



Th. Damodharan, DEO, St. Thomas Mount, supported by CEO, Kanchipuram, attended the programme and signed the certificates for students on 28.08.2019 at JaiGopal Garodia Hr Sec School, Tambaram, Kanchipuram District.



Th. S. Subramaniam, DEO, Virudhunagar attended the programme and signed the certificates for students on 04.09.2019 at KV Sala Matric Hr Sec School, Virudhunagar. Sincere thanks to **Th. Raja, District Eco Coordinator, Virudhunagar** for coordinating the Schools for the programme.



Th. B. Kamaraju, PA to CEO and **Th. R. Palanisamy, District Deputy Inspector, Ariyalur School Education Dept.** signed and distributed the certificates to the Students on 06.11.2019 at CSI Hr Sec School, Ariyalur.



Th. Hari, District Eco Coordinator with the Guidance of Dindigul CEO and PA to CEO have successfully coordinated the programme in Dindigul District, signing and distributing the certificates to the students on 24.10.2019 at Kamarajar Vidyalaya, Dindigul.

TECHNICAL SESSION – 11:00 AM TO 4:00 PM**a. ICEBREAKING SESSION -**

Breaking the Mould of Tests, Quizzes, Exams, Papers and Books is the Gamified Module designed by our Partnering Startups – Infinite Engineers, Warhorse, MADIEE, Getset Ventures and E21.

The Icebreaking sessions allowed the students to calm their nerves and focus on learning through games and experience.



b. MINEFIELD – A Game to test Team Work, Collaboration, Communication and Listening Skills

Minefield – Each Team will be provided with Two Chances – One in the Team will be Blindfolded and the others should guide him through the Minefield to reach the end point to gain the maximum points. The Points earned through this game will help the students to purchase extra materials that are needed for the STEM Challenge of building the Catapult. Stepping on the cards means you are out and the maximum points that can be scored is 150 Points.

Through this process, the students will understand the importance of communication, collaboration, creativity and critical thinking. The process of earning and purchasing extra materials teach the students the concept of making the best use of the resources, value, cost profit and loss, economics and also the concept of sustainability.



c. MINEFIELD - Teachers Participation

Teachers also participated in the Minefield Module to understand how the students were learning through experience the importance of Team Work, Communication & Listening Skills. Their Feedback was very valuable to us in each of the Districts.



In few districts, it was requested of the EDII-TN and TANSIM team and School Education Department to devise programmes that could improve their teaching methodologies and also introduce gamified approach to students and in classes.

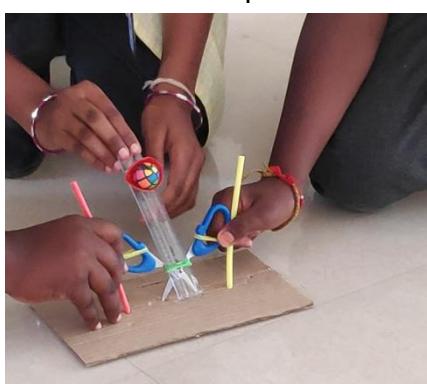
It was also requested to create more awareness about Atal Tinkering Labs and the procedures and know-how for application, setting up and maintenance of the ATLs.

S.T.E.M Challenge – Building a Catapult

The Teams were provided with Material Kits (designed by team Infinite Engineers) with which they are asked to build a Catapult Model. While giving the Material Kits, the teams were provided with Purchase Sheets with which they can buy and sell extra materials with the points they have earned from Minefield Game.



The Students are tasked with the challenge to build a strong and effective Catapult Model which will hit the target accurately and also launch the ball the farthest distance by making use of the same resources provided to them.



The Challenge tested the students' abilities to apply basic physics and mathematics in the real world situation wherein it is also required to make the best and more economical use of the resources provided. Some of the students even did mathematical calculations and gave the feedback that he has applied NEWTON'S LAWS to win.

Test for Accuracy and Range



After the STEM Challenge of Building the Catapult is completed, The Students were asked to come to the front and speak about their projects, school life and in general, topics that interested and motivated them.

d. Public Speaking – Communication



Listening, Communication, Public Speaking are one of the most important traits to becoming successful. This activity was designed to get rid of the fear in students to come forth and speak in public to a group. Language shouldn't be a barrier and should never be the quotient for

intelligence.

Many Government School students were hesitant to come forward because they were not as fluent in English as other school students but once we get rid of the barriers, they have come forth with one of the best speeches the team has ever listened to.



ATAL TINKERING LABS IN TAMIL NADU

Atal Tinkering Labs are open-ended innovation workspaces in schools that are equipped with state-of-the art technologies like 3D printers, robotics, sensor technology kits, Internet of Things, miniaturised electronics etc, to enable students to learn and solve local community problems using emerging technologies.

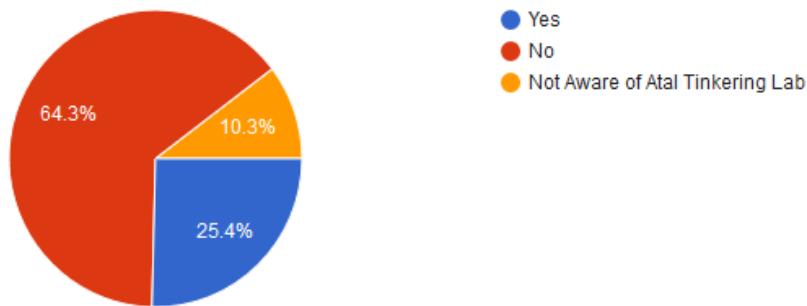
The aim of Atal Labs is to promote innovation and entrepreneurship in schools, universities and industry with a vision to "cultivate one million children in India as the innovators of tomorrow".

According to the Atal Innovation Mission, 395 Schools in Tamil Nadu have been selected, out of which 119 are funded. The list of schools recently selected is yet to be released on the public domain.

EDII-TN and School Education Department through the TAMIL NADU ILAM INNOVATORS CHALLENGE 2019 was able to reach 120+ Atal Tinkering Lab Schools and In-charges.

Is there an Atal Tinkering Lab in your School?

465 responses



The EDII-TN team has worked on understanding the Ground Level problems/issues that the current existing Atal Tinkering Labs have been facing. The Team has also worked on creating awareness to those schools which are eligible but not aware or familiar with the process.



ATAL TINKERING LABS IN TAMIL NADU STATUS & AREAS TO FOCUS



AREAS TO FOCUS:

- 1. Capacity Building – Priority - Training the Teachers, College Students and Graduates** to be the Mentors and Atal Tinkering Lab In-charge. Existing Tinkering Labs need support and assistance in handling, maintenance and operation of 3D Printing Machines, Electronics and Electrical Items.
- 2. Need for Support Network** – Atal Lab Incharges, Teachers and Students expressed the **need for a common platform/network** to interact, learn and collaborate with each other. This common platform/network may be provided by State Government or NITI Aayog Atal Innovation Mission and will help in building a strong self-supporting community in the State and in the Nation.
- 3. Awareness Programmes** – Many Schools through our survey and interactions have replied that they have very little to no awareness about such a scheme operating for the benefit of the School and it's Students. **The School Education Department and EDII-TN/TANSIM may take up an initiative in creating this awareness with the help of the stakeholders and prominent start-ups in the education sector.** This will lead to more school applications from Tamil Nadu.
- 4. Connect with Startup Ecosystem, Industries and Academia** – Many Schools have requested in establishing a strong connect with the Startup Ecosystem, Industries and Academia in order to organize sessions and interactions with School Students. This will continuously engage the students, inspire and motivate them to make the best use of their potential. This will also mean that it will have created a strong Mentor Network for the students to explore and seek knowledge/help.
- 5. Need Regionalised Methodology both in English and Tamil** to continuously engage the Students and create widespread interest not only within the school but also in the neighbourhood. In the Schools that the team has interacted with, expressed that the Atal Incharges and teachers do not know how to engage or pique interest about the New Tech available in these tinkering labs among 6th and 7th Standard students. The students that do show interest are in 10th, 11th and 12th Standards. These

students will often be restricted to spend their time at the lab as the teachers need them to be focussing on the Public Board Examinations.

- 6. Existing Atal Tinkering Labs need to keep their doors open for neighbouring schools** – Many Schools do not allow the neighbouring schools or students to work or use the facilities of the Atal Tinkering Labs let alone visit them.
- 7. The Atal Tinkering Labs, as per the vision of AIM and Tamil Nadu Startup and Innovation Mission, need to function as a Junior Entrepreneurship or Junior Innovation Cell in Schools.** This is where the College E-Cell Members can pitch in and create a strong bond between College and School Students, where we find a rather large disconnect.

How can College E-Cells support Atal Tinkering Labs and creation of Junior E-Cells in Schools?

Through TNIIC 2019

More than 250 College E-Cell Members from all over Tamil Nadu were trained by the Startups Infinite Engineers and Warhorse with the module developed in collaboration with MADIEE, Get Set Ventures and E21. During this training, they were taught the Gamified Modules for Stage1 and the process by which the School Students will be evaluated.

Out of the total 260 College E-Cell Members who have attended the TRAIN THE TRAINERS PROGRAMME, 104 E-Cell Members were selected as District Captains. The District Captains will facilitate Stage1 of TNIIC 2019 in their respective Districts and mentor the school students throughout their journey till the State Level Finals. This System has created a healthy friendship and bond between the school students and college students who will help each other through their Journey of Innovation and Entrepreneurship.

Likewise, there have been cases where the school management have approached the District Captains to handle sessions for their students at the Atal Tinkering Labs and also as personnel to handle and repair the equipments.

The School Education Department along with EDII-TN and TANSIM may work at bringing together and enabling the college E-Cell students to volunteer

and organize sessions at Atal Tinkering Labs or implement the **E-21 Model of IIT-Madras E-Cell** and create Junior E-Cells or Innovation Cells/Clubs at each school that has a Atal Tinkering Lab. The College Students can also bridge the gap in career guidance for School Students.

FEEDBACK, SCOPE AND BENEFITS OF THE PROGRAMME

Towards the end of each of the programmes in Stage 1 – District Level Selections, the Students and Teachers were asked to fill the Feedback forms. **From the 1471 Students and 496 Teachers** across all the 32 Districts of the State, we have had positive feedbacks and there was this one otherwise feedback raised by a teacher from Trichy District. The TNIIC 2019 was initially planned to be conducted in each of the Educational Districts of Tamil Nadu, but due to unavoidable operational difficulties we had to conduct only 2 batches max per Political District of the State.

Apart from that, the Gamified Module designed by our Startups Team – Infinite Engineers, Warhorse, MADIEE, GetSet Ventures, E21 received great praise from both the Students and Teachers that they have learned so many good things from this programme.

Also, this programme has become a platform for creating awareness about Tamil Nadu Startup and Innovation Mission, EDII-TN, School Education Department's Initiatives, Atal Tinkering Labs and the splendid efforts and initiatives taken by the partnering start-ups to all the 32 Districts of Tamil Nadu.

Scope and Benefits

- Tamil Nadu Ilam Innovators Challenge 2019's Objective is to inculcate the spirit of Innovation and develop Entrepreneurial Skills i.e 21st Century Skills in school students across all the districts of Tamil Nadu. We have achieved this objective in 17 districts and we still have 15 to go. **The team has collected valuable data with different parameters and through analysis of which, we can identify the strengths and shortcomings of each of the Districts and each Board of Education.**

- TNIIC 2019 is a **platform for the students to analyze their own skills, evaluate their competition in the district and in the state, and develop their potential to reach higher levels of competition.**

The programme will make the students competition-ready to compete at the National Level like in INSPIRE, National Science Congress, Google Science Fair, etc. This will also bridge the skill-level and confidence gap between Government and Private schools.

- TNIIC 2019 enabled the team to get **Ground Level Data on Atal Tinkering Labs currently established and functioning in the State**, analysis of which will be beneficial to ATAL Innovation Mission, Tamil Nadu Startup and Innovation Mission, School Education Department, Entrepreneurship Development and Innovation Institute and Startups in the field of Education and Edu-Tech.

Also, in the near future these Atal Tinkering Labs can perform as the base of operations for **the Junior E-Cells or Innovation Cells, supported by College E-Cells through the AIEDP Programme of EDII-TN/TANSIM.**

- The Programme has created much **awareness amongst the Students, Teachers and Schools** about the Initiatives and Schemes that the Government of Tamil Nadu and Government of India has implemented for their benefit through the School Education Department, RMSA, SSA, EDII-TN and such departments/agencies.
- The School Education Department through EDII-TN/TANSIM has opened up Government schools and Government Aided Schools for our partnering start-ups to work with and do the best they can for the benefit of the Students and Teachers. **The Teachers can also be trained in this regard, to build their capacity and to introduce innovative teaching methodologies in class. The Government and Startups can work together in this regard and in more cases.**



For More Details & Information:



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Our Partners

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WARHORSE

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M.A.D.I.E.E

<https://www.madiee.com/>

SP ROBOTIC WORKS

<https://sproboticworks.com/>

E21 – IIT-M

<https://www.facebook.com/ECELLIITM/>

PIJAM FOUNDATION

<http://www.thepijam.org/>

GET SET VENTURES

<https://getset.co.in/>