ABOUT THE PROGRAMME:

Entrepreneurship Development and Innovation Institute, Tamil Nadu (EDII-TN) with the support of School Education Department, has launched the Tamil Nadu ILAM (Young) Innovators Challenge during the academic year 2019-20 on a pilot basis to inculcate the spirit of Innovation and develop Entrepreneurial skills amongst the school students of 8th to 12th Standard across all the districts of Tamil Nadu.

STAGES OF TNIIC :

1. Train The Trainers (T.T.T) Programmes at Chennai, Coimbatore, Madurai, Tirunelveli & Trichy. College E-Cell Members are trained to be mentors for School Students and Facilitators of Stage 1.

2. STAGE I:- District Level Selections across all the 32 Districts of Tamil Nadu. 52 Batches.

3. STAGE II:- Four Days Residential Training Workshop at 5 Regions/Hubs - Chennai, Coimbatore, Madurai, Trichy and Tirunelveli 15 District Level Awards of Rs.10,000/- each.

4. STAGE III:- State Level Pitch Finals
   5 State Level Fellowship Awards of Rs. 1,00,000/- each team.

More than 500 Schools have registered for TNIIC 2019 through www.tniic.in and also through offline, out of which 60% of the registrations are from Government and Government Aided Schools. We have also reached out to Tribal Residential Schools, with the help of the School Education Department. (Special Thanks to Th. M.Vasu, Joint Director NSS)

It is a first of its kind initiative taken, as per the Tamil Nadu Startup and Innovation Policy (2018-23), by EDII-TN and School Education Department, GoTN partnering with Startups in the field of Education and Ed-Tech - Infinite Engineers, Warhorse, MADIEE Games, Getset Ventures, E21 IIT-Madras and SP Robotic Works Maker Lab.

MEMORANDUM OF UNDERSTANDING:

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 in order 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 modernize the teaching methods.

- 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.

TAMIL NADU ILAM INNOVATORS CHALLENGE - 2019-20

Entrepreneurship Development and Innovation Institute, Tamil Nadu & School Education Department, Tamil Nadu
With Infinite Engineers, Warhorse, MADIEE Games, Get Set Ventures, E21 IIT-Madras and SP Robotics Maker Lab

TRAIN THE TRAINERS PROGRAMME -

The First Phase (May - July, 2019) of the Tamil Nadu Ilam Innovators Challenge 2019 is the Train the Trainers Programme, which 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.
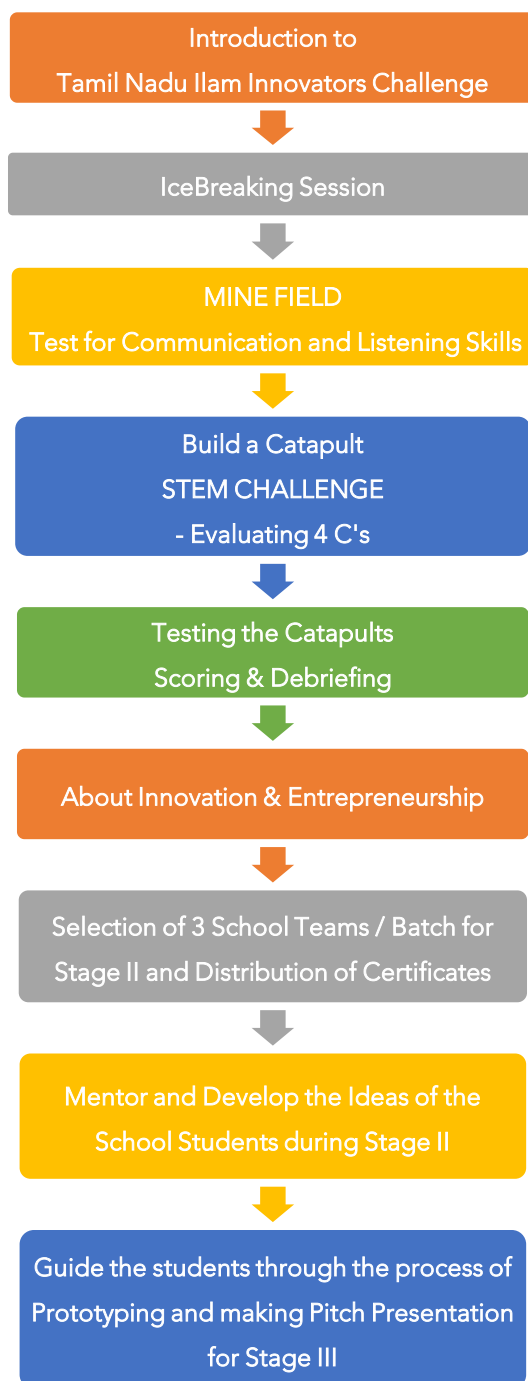
Five T.T.T Programmes were conducted:

Region /Hub	Date & Venue	No. of Participants
Chennai	28.05.2019 EDII-TN, Guindy	47
Trichy	11.06.2019 Anna University UCE-BIT Campus, Trichy	65
Tirunelveli	02.07.2019 Anna University Regional Campus Tirunelveli (AURCT)	62
Coimbatore	12.07.2019 Anna University Regional Campus Coimbatore (AURCC)	51
Madurai	22.07.2019 Thiagarajar College of Engineering, Madurai	35
Total No. of Participants		260

A Total of 260 College Students were trained, out of which 104 College Students were selected as District Captains for their respective Districts. The Best Performing District Captains of the Winning School Teams will be awarded a Voucher of Rs.10,000/- at the Stage III Finals.

Stage I of TNIIC 2019 was conducted as 52 Batches in 32 Districts and each batch was facilitated by 2 District Captains.

A Training Manual was prepared in English and Tamil for the District Captains and they were supervised by TANSIM/EDII-TN.

The Role of the District Captain is as follows:

Introduction to Tamil Nadu Ilam Innovators Challenge

↓

IceBreaking Session

↓

MINE FIELD
Test for Communication and Listening Skills

↓

Build a Catapult
STEM CHALLENGE
- Evaluating 4 C's

↓

Testing the Catapults
Scoring & Debriefing

↓

About Innovation & Entrepreneurship

↓

Selection of 3 School Teams / Batch for Stage II and Distribution of Certificates

↓

Mentor and Develop the Ideas of the School Students during Stage II

↓

Guide the students through the process of Prototyping and making Pitch Presentation for Stage III

TAMIL NADU ILAM INNOVATORS CHALLENGE - 2019-20

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STAGE I - DISTRICT LEVEL SELECTIONS

The District Level Selections of School Students has been completed successfully during August - November 2019 in all the 32 districts of Tamil Nadu, with the support of the School Education Department (Under the guidance of Th. M.Vasu, Joint Director (NSS) and Chief Education Officers (CEOs) of each District), IEDP Hubs of EDII-TN and the District Captains.

The Training Kits for District Captains and School Students were provided by Infinite Engineers Team.

52 Batches were conducted during this Second Phase of Tamil Nadu Ilam Innovators Challenge. 1471 students (494 Teams) and 496 teachers from 494 schools were trained 21st Century Skills - 4Cs - Communication, Collaboration, Creativity and Critical Thinking through a Gamified Module developed by the partnering Startups, who are the knowledge partners.

Out of 1471 students i.e. 494 Teams, 468 best performing students (159 Teams) were selected by the District Captains for Stage 2 - Region/Hub Level - 4 Day Residential Training Workshops based on their score in the Gamified Module.

More than 120+ Atal Tinkering Labs were surveyed during this programme and the comprehensive report of the status with recommendations was submitted to the School Education Department

Ice Breaking Session:

Mine Field- Test for Communication & Listening

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

Public Speaking

Distribution of Certificates & Qualify for Stage 2

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

STAGE II - REGION/HUB LEVEL FOUR DAY RESIDENTIAL TRAINING WORKSHOP:

Stage II of the Tamil Nadu Ilam Innovators Challenge is the Region/Hub level 4-Day Residential Training Workshop successfully conducted for 5 Regions/Hubs during December 2019 to February 2020. The details are as follows:

Region/Hub	Location / Venue and Date	Organized by	Number of Participants and Volunteers			
			School Students	Teachers	District Captains & Volunteers	Total
CHENNAI	Madras Institute of Technology, Anna University Chennai 28.11.2019 to 01.12.2019	IEDP Hub - ED Cell of Madras Institute of Technology, Anna University, Chennai	78	24	12	114
COIMBATORE	Anna University Regional Campus Coimbatore AURCC 03.01.2020 to 06.01.2020	IEDP Hub - ED Cell of Anna University Regional Campus AURCC	76	26	18	120
MADURAI	Anna University Regional Campus Madurai AURCM 09.01.2020 to 12.01.2020	Anna University Regional Campus Madurai AURCM	84	30	47	161
TIRUNELVELI	SCAD College of Engineering & Technology, Cheranmahadevi 31.01.2020 to 03.02.2020	IEDP Hub - ED Cell of Anna University Regional Campus, Tirunelveli	53	16	14	83
TRICHY	Hallmark Business School, Trichy 06.02.2020 to 09.02.2020	Hallmark Business School, Trichy	84	30	25	139
		Total	375	126	116	617

During the 4 Days, The students selected from Stage 1, were trained in the concepts of Growth mindset, Ethos Pathos & Logos, Design Thinking, Problem Identification, Prototyping, Innovation & Entrepreneurship, Robotics in Tamil and Pitch Presentation by the partnering Start-ups

The best 3 performing teams, from each zone, with Innovative Ideas were selected for the Stage 3 - State Level Pitch Finals and were awarded a cash prize of Rs 10,000/- (Rupees Ten Thousand Only) each for developing their ideas into a prototype.

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GROWTH MINDSET WORKSHOP

S.Sharat and Akshay Bharadwaj from Team Warhorse seamlessly achieved the objective of encouraging the students to learn and practice growth mindset amongst all the students. As a result, the students became more confident in pursuing their passion/ any talent, thanks to the Cup Song.

Growth Mindset will not only help the students but also the teachers as well. The Team explained the concept of neuroplasticity, which the students learned by doing the Cup Song.

Growth Mindset vs. Fixed Mindset
The Difference in a Nutshell

When students have a Growth Mindset, they take on challenges and learn from them, therefore increasing their abilities and achievement.

The attitude and belief that you canít learn something ever and this is something that you can never do is part of a Fixed Mindset, and itís something that we can change.

The students were taught chunking - which means breaking down a large piece into a bunch of smaller pieces and with practice, we can perfect each one and solve any problem.

ETHOS, PATHOS AND LOGOS

G. Senthil Kumar, Founder of MADIEE Games, with his team introduced to the students a very interesting way to test their Teamwork, Leadership & Intelligence through Word Association Tests, Emotions and Logic through Gamified Modules, which is their expertise.

ETHOS - Appealing to Credibility

The Students were taught to how to introduce themselves, create their own credibility and build character. Their idea is their strength and their actions build credibility.

PATHOS - Appealing to Emotion

The Students were taught how to understand and empathize with the audience and speak boldly with passion. Being aware of whatís happening in the world and being proactive is the first step towards growth mindset.

LOGOS - Appealing to Logic

The Students were taught how to use Logic and their intelligence to help others and to create solutions to the problems identified by them in their day-to-day life.

** The Concept of Ethos, Pathos and Logos and Growth Mindset forms the very basis and fundamentals for Design Thinking and Entrepreneurship, which was planned for Day 2.

DESIGN THINKING WORKSHOP

M.A.Aravind from Team Infinite Engineers explained the concept of Design Thinking and designed an experiential learning module for the students which make them go through the following steps:

- Empathize
- Problem Identification
- Define the Causes and Effects
- Ideate a Solution & Prototyping
- Testing & Validating
- Feedback

The school teams have been given an activity to design a Labyrinth Puzzle with the materials provided in the Kit. Once completed, the other teams will have to solve it and scoring is done. Through this activity, the students go through each step of the Design Thinking process and understand that this concept can also be used for any aspect of their education and career.

E21- IIT MADRAS
INNOVATION & ENTREPRENEURSHIP

E21 is a social initiative campaign launched by a team of enthusiastic and driven group of students of IIT Madras E-Cell. Their Team extended their service to TNIIC taking their module of teaching entrepreneurship, business planning, innovation and leadership amongst all the students in Tamil Nadu.

The Students were taught how to Brainstorm Ideas for a problem identified by them, develop the ideas into a valid solution and also to look at it from Entrepreneurship point of view. Their Science Projects can be transformed into real time businesses that not only help themselves but also the society in many ways. Shubham Subhas Danannavar, Hanusha. S, Anusha and their team helped the students in this regard and ignited a passion within them for their future.

The Following is the journey of the Student during Stage 2 TNIIC:

Ethos, Pathos & Logos → Growth Mindset → Identifying Problems → Studying the cause and effects → Generating Ideas → Arriving at a Solution through Design Thinking → Prototyping → Testing → Feedback → Repeat followed by Business Planning → Pitch Presentation

TAMIL NADU ILAM INNOVATORS CHALLENGE - 2019-20

Entrepreneurship Development and Innovation Institute, Tamil Nadu & School Education Department, Tamil Nadu
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GETSET VENTURES

Dhanush Ram.S and his team from Getset Ventures joined hands with E21 - IIT Madras to teach Entrepreneurship, Business Planning and the art of making a Pitch Presentation. Team GETSET Ventures are experts in career counselling of students through a gamified module that tests the student's IQ and Psychology in order to make the right career decision.

There are more career options than just Engineering and being a Doctor. Team Getset Ventures collaborated with E21 to provide a holistic approach in developing project ideas to real time businesses.

Dhanush and his team also explained that problems identified by the students can be solved either using technology or using non-technological solutions. It all depends on your growth mindset, design thinking capability and out of the box critical thinking.

Their session was followed by SP Robotics Maker Lab - Use of Robotics and Modern Technology to solve 21st Century Problems.

SP ROBOTICS | Maker Lab

SP Robotics Maker Lab, India's Largest Network of Maker Labs, is an entity under SP Robotic Works. Their Team K. Vishal, D.Vignesh, N. Shyam Sundar and Hari Narayanan took on the responsibility of teaching the young chaps Robotics and Technological advancements in Tamil, which is the first time in our state under an initiative taken by the Tamil Nadu Govt.

All Tamil Medium, Government and Government Aided school students who have participated in TNIIC were benefitted by the efforts of SP Robotics Maker Lab.

The Students were given Hands-On experience by providing them Robotic Kits, which for many of the students was their first time seeing the robotic equipments and Drones.

STAGE II - WINNERS - QUALIFIED FOR STATE LEVEL FINAL PITCH

Region/Zone/Hub	Sl. No	Name of the School	Student's Name	Class	Project/Business Idea - Pitch
CHENNAI ZONE WINNERS	1	ARUMUGA NAVALAR HR. SEC. SCHOOL, CHIDAMBARAM, CUDDALORE DIST.	TAMILBHARATHI P	12	Dye-based Polymer Compound for making Satellites, which disintegrates on radiation when decommissioned. Hence, tackling the problem of space pollution.
			RAGUL R	11	
			JAYANTH NARAYANAN A	12	
	2	GOVERNMENT HIGH SCHOOL, COWLBAZAR, KANCHIPURAM	A.VIJAY	9	Supply and Manufacture of Edible Water Bottles for Govt. Schools and Public. Also, supply of Coconut Water, Buttermilk and other nutritious liquids.
			S.RAGHUL	9	
			N.KABILAN	9	
	3	KALIGI RANGANATHAN MONTFORD MATRIC. HR. SEC. SCHOOL, PERAMBUR, CHENNAI NORTH	VIBISHINI T	11	Organic Sanitary Napkins using sugarcane extracts and similar compounds - Subscription Model of Business and also tackling disposal problems.
			SUDHARSINI V	11	
			JANANI B	11	
COIMBATORE ZONE WINNERS	1	GOVERNMENT HIGH SCHOOL, KANUVAII, COIMBATORE	S.PRAVEEN KUMAR	9	Light Weight, Low Cost Welding Mask with Air Filters for MSME sector.
			K.SURIYA RAJA	8	
	2	ADHARSH VIDHYALAYA MATRIC HR SEC SCHOOL, TIRUPPUR	VISHAL C	11	Future Farming - Low Cost Farm Robotics & Single Application Service (with TNAU) for modern Agricultural Technology Transfer to Farmers.
			SRIDAKSHIN M	11	
			KISHORE K	11	
	3	GOVERNMENT HR SEC SCHOOL, SEENAPURAM, ERODE	DIVAKAR T	11	Hybrid Fuel Intake modification for existing motorbikes, wherein organic trash can be used to drive the engine.
			BOOPATHI P	11	
			KARTHIKEYAN K	9	
MADURAI ZONE WINNERS	1	ECN VIDYALAYA MATRIC SCHOOL, THENI	C ANUMITHA	9	Autonomous management of Farm Irrigation and Grape, Flowers / Vine Plantations.
			R KALEESWARI	8	
			B NEAHA	8	
	2	V.M.GOVT BOYS HR SEC SCHOOL, PERIYAKULAM	U.MOHAMED SHAMIL	11	Frugal Innovation for Carpenterís Cutting Machine - Proximity Sensors to detect human hands and Handle Modification.
			R JAFRIN RAJA	11	
			J SAM KISHORE	11	
	3	KALAIMAGAL MATRIC HIGHER SECONDARY SCHOOL, NAMAKKAL	K.S.SACHIN	10	Marriage Mapp - Application Service for Marriage Location, Tracking Invitations, Guests (QR Codes) and A-Z services for both organizes and attendees.
			S.GNANASRIKARAN	10	
			DHANANJAI PERIYASAMY	9	
TIRUNELVELI ZONE WINNERS	1	GOVT HIGHER SECONDARY SCHOOL IRUMENI	N.BAGAVATH	10	Frugal Innovation - Harvesting Solar Power using Compact Disks and Copper Coils.
			VIJAY R	9	
			M.ASHRAF	9	
	2	DEVANGAR GIRLS HIGHER SECONDARY SCHOOL, ARUPPUKOTTAI	R.MADHUMITHA	9	Special Aid for Hearing Impaired People which helps them to drive Two Wheelers safely through an embedded alert system mechanism.
			V.RAMYA	9	
			K.AISHWARYA LAKSHMI	9	
	3	S.L.B GOVERNMENT HR SEC SCHOOL, NAGERCOIL	A.ABUL FYZ	11	Emergency Crash Locator (IOT) to aid the dispatch of Emergency Services to Accident Victims
			M SUNJEEV KUMAR	11	
TRICHY ZONE WINNERS	1	GOVT. HR SEC SCHOOL, THIRUBUVANAM, THANJAVUR	A. BARANITHARAN	8	INDFinger - Finger Print Forensics Handheld Device that is equipped with UV Scanner and High End Lens.
			R. SATHISHKUMAR	9	
			T. JEEVAN	9	
	2	GOVT. HR SEC SCHOOL THIRUMULLAIVASAL	T.DHIVYAN	10	Low Cost Fully Mechanical Prosthetic Arms, Hands and Legs - Prototype.
			B.KARTHIKEYAN	10	
			A.ARISHKANNAN	10	
	3	K.S.V HR SEC SCHOOL, THULASIKODUMBU	SANJAY K	11	Feedback based Local Bus Transport Logistics and Ticketing App that solves all the problems faced by Public as well as Transport Authorities (Emergency SOS, Disciplinary Issues, Women Safety, etc)
			MANICKAVASAGAM C	11	
			VENUDHARSHAN B	11	

STAGE III - STATE LEVEL FINALS - PITCH

The State Level Finals for the 15 school teams (43 Students) selected from all the 5 Regions/Zones was originally planned to be conducted on March 28th, 2020. The One Day Programme was postponed indefinitely because of the precautionary measures and instructions issued by the Government against COVID 19. TANSIM / EDII-TN is Awaiting further instructions from the Government in this regard to conduct the finals for both Tamil Nadu Ilam Innovators Challenge (for School Students) and Tamil Nadu Student Innovators (for College Students).

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Visit our website: www.tniic.in

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Our Partners - The TNIIC 2019 Team

INFINITE ENGINEERS	http://infiniteengineers.in/
WARHORSE	http://warhorse.in & https://www.facebook.com/warhorse.wh/
MADIEE Games	https://www.madiee.com/
SP ROBOTIC WORKS	https://sproboticworks.com/
E21 IIT-M	https://www.facebook.com/ECELLIITM/
GET SET VENTURES	https://getset.co.in/

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