

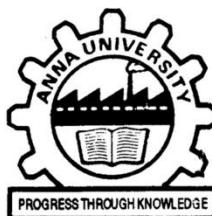


ENTREPRENEURSHIP DEVELOPMENT AND INNOVATION INSTITUTE
AND SCHOOL EDUCATION DEPARTMENT, TAMIL NADU



TAMILNADU
INNOVATORS | இளம்
CHALLENGE

STAGE 2 - MADURAI ZONE REPORT

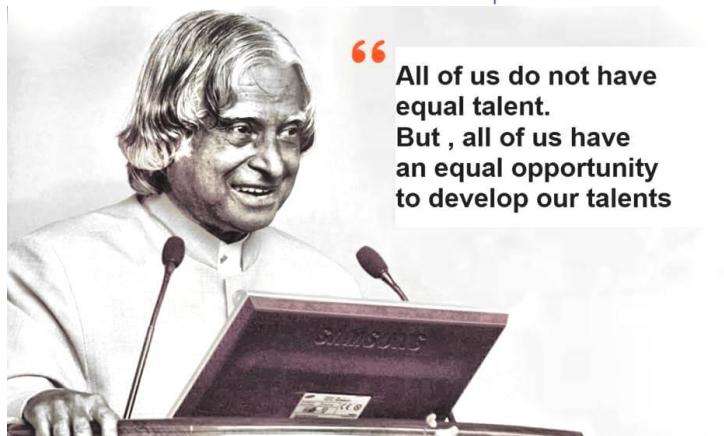


4-DAY RESIDENTIAL TRAINING WORKSHOP

09.01.2020 to 12.01.2020

ANNA UNIVERSITY REGIONAL CAMPUS MADURAI (AU-RCM)

Supported by IEDP Hubs of Alagappa University, Karaikudi,
Madurai Thiagarajar College of Engineering & Madurai Kamaraj University



“
All of us do not have equal talent.
But , all of us have an equal opportunity to develop our talents

Sincere Thanks to

1. Principal Secretary, M.S.M.E Department & Director, EDII-TN Dr. Rajendra Kumar, I.A.S
2. Principal Secretary, School Education Dept. Th. Pradeep Yadav, I.A.S
3. Director, School Education Department Dr. S.Kannappan
4. Additional Director, EDII-TN Tmt. R.V.Shajeevana
5. Dean, Anna University Madurai Prof Dr. V.Malathi
6. Joint Director(NSS), School Education Dept. Th. M.Vasu
7. Deputy Director(PMO), EDII-TN Th. R.Shiva Shankar
8. IEDP Madurai Hub Coordinator –TCE Dr. S. Chandran
9. IEDP Madurai Hub Coordinator - MKU Dr. P. Kannadas
10. Chief Education Officers of the Districts of Tamil Nadu
11. APO Sivagangai, Mahalir Thittam Th. V. Anburaja
12. AURCM Programme Coordinators – Dr. R.GopalaKrishan, Dr. K.Karthikeyan, Dr.P.Umamaheswari, Dr.M.Bhavani, Mr.V.Arun, Dr.L.Sheela & Dr.E.Srie Vidhya Janani and supporting staff
13. Partnering Startups – Infinite Engineers, Warhorse, M.A.D.I.E.E, SP Robotics Maker Lab, E21 IIT-Madras and Getset Ventures.

And to all the District Education Officers, District Eco Coordinators, Headmasters/Principals, Teachers, Atal Tinkering Lab-Incharges, District Captains and all the supporting staff in organizing the TAMIL NADU ILAM INNOVATORS CHALLENGE 2019.



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**TAMIL NADU ILAM 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 Maker Labs, E21- IIT Madras 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 (T.T.T) Programme** for College Students to be trained by Startups to be the mentors and trainers for School Students.
- 2nd Phase (August to February) – 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.



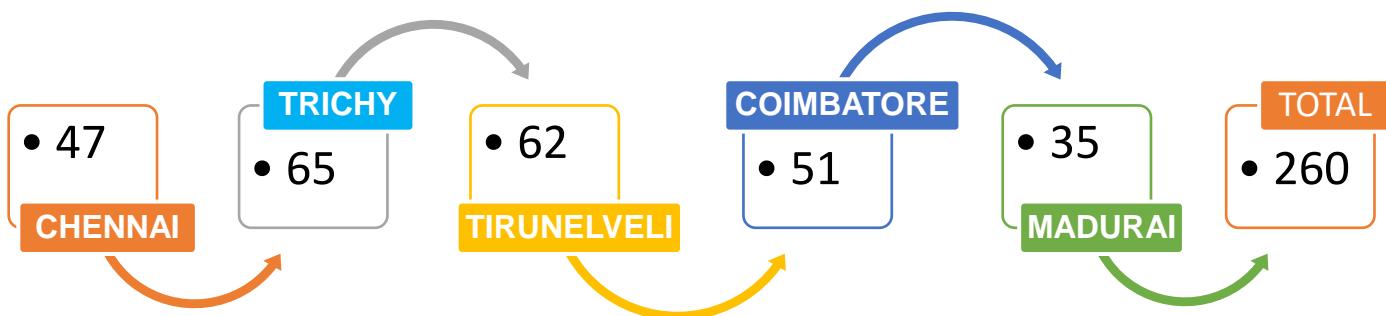
About EDII-TN - Entrepreneurship Development and Innovation Institute is a Non-Profit Autonomous Society established by the Government of Tamil Nadu in 2001. Collaborating with corresponding knowledge partners, EDII-TN conducts various training programs, gatherings, mentoring sessions from industry experts 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

August & September 2019

- 30 Batches
- 17 Districts
- 867 Students
- 285 Teachers
- 294 Schools

October & November 2019

- 22 Batches
- 16 Districts
- 604 Students
- 211 Teachers
- 200 Schools

STAGE 1 - TNIIC Completed

- 52 Batches
- 32 Districts
- 1471 Students
- 496 Teachers
- 494 Schools

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 (471 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.



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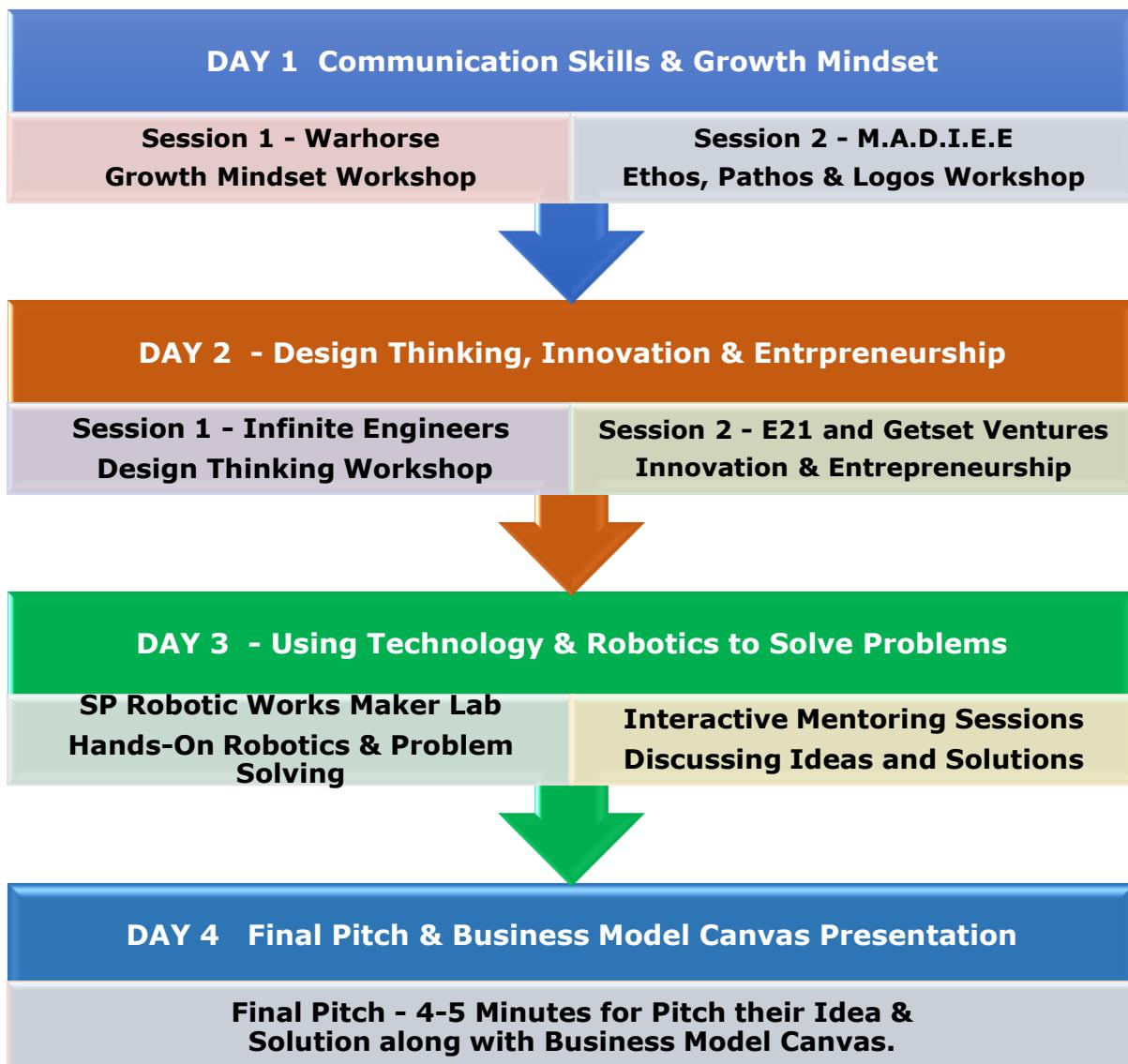
Sl. No.	District	Date Conducted	No.of Batches	No of Schools/ Teams	No.of Students	No. of Teachers	Teams Selected for Stage 2
1	CHENNAI	14.08.2019 & 16.08.2019	2	20	58	21	6
2	PERAMBALUR	19.08.2019	2	20	60	19	6
3	COIMBATORE	20.08.2019	2	17	51	15	6
4	TIRUNELVELI	20.08.2019	2	17	46	17	6
5	TIRUPPUR	21.08.2019	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

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Stage 1 - District Level Selections



Stage 2 – 4 Day Residential Training Workshop is planned to be organized in 5 Zones / Hubs – Chennai, Coimbatore, Madurai, Trichy and Tirunelveli, supported by EDII-TN I.E.D.P Hubs.



The students selected from Stage 1, will be trained on the concepts of Growth Mindset, Design Thinking, Empathy, Problem Identification & Problem Solving using Technological and Non-Technological Solutions, Business Model Canvas and Pitch Presentation, with the objective to develop and mentor their ideas & innovations and introduce the concept of Entrepreneurship to young minds. The best 3 performing School Teams from each zone/hub will be awarded a cash prize of Rs 10,000/- each to develop their ideas to real time prototype and present their solution at Stage 3 – State Level Finals to be held in Chennai in March 2020.

MADURAI ZONE - Anna University Regional Campus Madurai



Anna University Regional Campus Madurai has been established during the year 2010 and is situated at Keelakuyilkudi, Kanyakumari National Highway, Madurai. Under the Guidance of Prof. Dr. V. Malathi, Dean of AURCM, several programmes and activities have been undertaken for the benefit of the students and to improve the infrastructure facilities of the 27.44 acre campus. It is planned in the near future to set up a Fabrication Lab that would serve as the Innovation Hub in the Campus for not only benefitting the college students but also the schools that have been adopted by AURCM and are in the nearby surroundings.

A Letter of Request dated 16.12.2019 was submitted to the Dean of Anna University Regional Campus Madurai for conducting the Stage 2 – 4-Day Residential Training Workshop for Madurai Zone/Hub by Anna University Regional Campus Madurai. A Letter of Consent dated 27.12.2019 was received by EDII-TN from AURCM to conduct the programme during 09.01.2020 to 12.01.2020.

The following table lists the Number of Schools and Students from 6 Districts that come under Madurai Zone.

Sl. No	Zone/Hub	District Name	Total No. of Districts	Total No. of Schools/Teams Selected for Stage 2	Total No. of Students Selected for Stage 2
1	Madurai	Madurai	6	6	18
2		Pudukottai		6	18
3		Theni		3	9
4		Dindigul		6	18
5		Namakkal		6	18
6		Sivagangai		3	9
Total				30	90

Food and Accommodation

Out of the 30 Schools from 6 Districts that have qualified from Stage 1-District Level Selections Programme, 29 Schools have participated in the TNIIC Stage 2 – 4 Day Residential Training Workshop.

We greatly appreciate the efforts of the Dean, Prof Dr.V.Malathi, Assistant Prof Dr. R.GopalaKrishan, Deputy Warden for Boys Hostel Dr. K.Karthikeyan and Mr.V.Arun, Deputy Warden for Girls Hostel Dr.P.Umamaheswari, Th. Aravindan Hostel Superintendent and team for making the best possible accommodation arrangements for the participating Students and Teachers at Boys and Girls Hostels respectively. Bedspreads, Sheets and Pillows have been arranged on rental and the rooms have been sanitized. Health care facilities were also made readily available 24x7.



Accommodation for Trainers was arranged at Hotel Sreenithi, which is nearby Mathuthavani Bus Stand. The AURCM Student Volunteers deserve a special credit for coordinating the programme and all the arrangements in a perfect manner by forming separate committees for each activity. They have been the best seniors to the school students helping them to understand the various academic options available for them to choose after completing schooling. Also the college students helped in mentoring the ideas of school students and shaped them to make the best pitch presentation on the final day.

The Food Arrangements were made at respective Hostel Messes for the Boys and Girls separately and the feedback received from students and teachers praised the quality of the food served during the programme. Much Credits to the Hostel Mess Staff.

Day 1 – Inauguration – 10:15 am – 11:00 am**Venue: Training Hall Auditorium**

The Inauguration of the Madurai Zone Stage 2 of Tamil Nadu Ilam Innovators Challenge 2019, which is a 4-Day Residential Training Workshop, organized by EDII-TN and Anna University Regional Campus Madurai with the support of School Education Department, was held at Training Hall Auditorium.

**Welcome Address by Prof. Dr.V.Malathi, Dean, AURCM**

With the Blessings of the Almighty, Prof Dr. V.Malathi welcomed the Dignitaries on the Dias and the participating **29 Schools (84 Students and 30 Teachers & Parents)** from **6 Districts – Madurai, Theni, Sivagangai, Pudukkottai, Namakkal and Dindigul** for the Stage 2 of Tamil Nadu Ilam Innovators Challenge 2019. The

Lamp Lighting Ceremony was held with the students coming forward to light the auspicious lamp and inaugurate the programme. Respected Dean addressed the students about the programmes and activities conducted by Anna University

Regional Campus Madurai for the benefit of not only the college students but also school students of Madurai and nearby Districts.

Special Address by Dr.P.Kannadas, IEDP Hub Coordinator, Madurai Kamaraj University -

The Hub Coordinator of Madurai Kamaraj University IEDP Hub addressed the participating students and teachers about the importance of Entrepreneurship and Developing Life Skills from a very young age. He has shared his life experiences and his wisdom with the students in a motivating manner and has ended his speech on a high note with much praise and applause. He further appreciated the efforts of AURCM and EDII-TN in bringing forward such a unique and much needed initiative highly beneficial to the school students for their growth and future careers.



Inaugural Address and About the Programme

Tmt. R.V. Shajeevana, Additional Director, EDII-TN delivered the programme address explaining that the students the various activities of EDII-TN supporting College and School Students through IEDP Programme. Additional Director further explained that the students during these 4 days will be learning about the concept of Growth Mindset, Ethos, Pathos & Logos, Design Thinking, Entrepreneurship, Business Plan Canvas and Hands ON Robotics Session in Tamil and English during the workshop. At the end, the fourth day will be the final Pitch Presentation wherein the students will present their innovative ideas to the judges and win 3 District Level Awards of Rs 10,000/- each.





The Participating 29 School Teams were split into Two Batches –

Batch 1

- M.N.U Jayaraj Nadar Hr.Sec School
- SBOA Matric Hr. Sec. School, Madurai
- Govt.High School, Ayyur Madurai
- ECN Vidyalaya Matric School
- Theni Melapettai Hindu Nadar Uravimurai Matric Hr Sec School
- Kallal Murugappa Hr Sec School
- Soundararaja Vidyalaya, Dindigul
- Govt Boys Hr Sec School, Vadamadurai
- GHSS Kambiliampatti
- Govt Model Hr Sec School, Pudukkottai
- Vivega Matric Hr Sec School, Viralimalai
- Vivekananda Matric Hr Secschool, Paundamangalam
- Kalaimagal Matric Higher Secondary School
- SPM Higher Secondary School

Batch 2

- Koodakovil Nadars Hr Sec School, Madurai
- Sriram Nallamani Yadava Girls Hr.Sec.School
- SPJ Matriculation Higher Secondary School
- V.M.Govt Boys Hr Sec School, Periyakulam
- Shree Raaja Rajan CBSE School, Sivagangai
- Panchu Valliappa Matric School,
- Bedford Academy Matric Hr Sec School
- GHSS Kasipalayam
- GHS Usilampatti
- Govt Boys Hr Sec School, Keeranur
- Govt Boys Hr Sec School, Aranthangi
- Govt Boys Hr Sec School, Keeramangalam
- Government High School, Cauvery RS, Pallipalayam
- Selvam Higher Secondary School
- Vidhya Nikethan Matric. Hr. Secondary School, Rasipuram,Namakkal

BATCH 1 – AGENDA

DAY 1 09.01.2020	INAUGURATION 09:30 AM – 10:30 AM	SESSION 1 10:30 AM – 01:00 PM WARHORSE GROWTH MINDSET WORKSHOP Focus on Student's Communication Skills, Confidence and Personality Development.	LUNCH	SESSION 1 (contd.) 02:00 PM – 2:30 PM WARHORSE GROWTH MINDSET WORKSHOP Focus on Student's Communication Skills, Confidence and Personality Development.	SESSION 2 02:30 PM- 05:30 PM M.A.D.I.E.E ETHOS, PATHOS & LOGOS Focus on Student's Empathy, Mindset, Social Consciousness incl. Liberal Arts
DAY 2 10.01.2020		SESSION 1 09:30 AM – 01:00 PM INFINITE ENGINEERS DESIGN THINKING WORKSHOP Empathy, Problem Identification and Solution – Critical Thinking	01:00 PM - 02.00 PM	SESSION 2 02:00 PM – 5:00 PM E21 & GETSET VENTURES ENTREPRENEURIAL SKILLS Innovation, Idea 2 Prototype, Product Market Fit & Pitch Presentation	
DAY 3 11.01.2020		SESSION 1 09:30 AM – 01:00 PM SP ROBOTIC WORKS MAKERLAB HANDS-ON SESSION - Identifying Problem Solutions using Technology (Incl. IOT, AI and Robotics)	LUNCH	SESSION 2 02:00 PM – 4:30 PM SP ROBOTIC WORKS MAKERLAB Identifying Problem Solutions using Technology (Incl. IOT, AI and Robotics)	SESSION 3 04:30 PM - 05:30 PM SP ROBOTICS MAKER LAB & EDII-TN DEBRIEFING & PREPARATION FOR FINAL PITCH

BATCH 2 – AGENDA

DAY 1 09.01.2020	INAUGURATION 09:30 AM – 10:30 AM	SESSION 1 10:30 AM – 01:00 PM M.A.D.I.E.E ETHOS, PATHOS & LOGOS Focus on Student's Empathy, Mindset, Social Consciousness incl. Liberal Arts	LUNCH	SESSION 1 (contd.) 02:00 PM – 2:30 PM M.A.D.I.E.E ETHOS, PATHOS & LOGOS Focus on Student's Empathy, Mindset, Social Consciousness incl. Liberal Arts	SESSION 2 02:30 PM- 05:30 PM WARHORSE GROWTH MINDSET WORKSHOP Focus on Student's Communication Skills, Confidence and Personality Development.
DAY 2 10.01.2020		SESSION 1 09:30 AM – 01:00 PM E21 & GETSET VENTURES ENTREPRENEURIAL SKILLS - Innovation, Idea 2 Prototype, Product Market Fit & Pitch Presentation	01:00 PM - 02.00 PM	SESSION 2 02:00 PM – 5:00 PM INFINITE ENGINEERS DESIGN THINKING WORKSHOP Empathy, Problem Identification and Solution – Critical Thinking	
DAY 3 11.01.2020		SESSION 1 09:30 AM – 01:00 PM SP ROBOTIC WORKS MAKERLAB HANDS-ON SESSION - Identifying Problem Solutions using Technology (Incl. IOT, AI and Robotics)	LUNCH	SESSION 2 02:00 PM – 4:30 PM SP ROBOTIC WORKS MAKERLAB Identifying Problem Solutions using Technology (Incl. IOT, AI and Robotics)	SESSION 3 04:30 PM - 05:30 PM SP ROBOTICS MAKER LAB & EDII-TN DEBRIEFING & PREPARATION FOR FINAL PITCH

Day 1 – Session 1 – WARHORSE**GROWTH MINDSET WORKSHOP**

Objective of the Workshop is to encourage students to learn and practice growth mindset, as a result, to be more confident in pursuing their passion/ any talent. This will help students speak more openly and with confidence and be more aware of their own self and their surroundings.



S.Sharath and Akshay Bharadwaj from Warhorse facilitated the session and started with an activity to bring out the communication skills of Students by asking them to introduce their selves and think/speak about their Strengths and Weaknesses. After the initial introductions, the concept of Growth Mindset was introduced to the Students and the Teachers. Through various means of communication, Sharath explained how a Growth Mindset is better than a Fixed Mindset.

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 can't learn something ever and this is something that you can never do is part of a Fixed Mindset, and it's something that we can change.



The Concept of Neuroplasticity - Learning by Doing the Cup Song:

Neuroplasticity, also known as brain plasticity, is the ability of the brain to change continuously throughout an individual's life, that it can be strengthened by practice and by changing our mindset. **Questionnaire** was circulated to determine one's mindset, whether it was a fixed mindset or a growth mindset.



The Objective of the Cup Song is to help the students understand that with Practice and an Open Mind, you can always perfect the work you are passionate about by Chunking. Chunking means the process of breaking down a larger piece into smaller and smaller pieces. Practicing step by step, you can solve any problem in life.



Day 1 – Session 2 – M.A.D.I.E.E

ETHOS PATHOS AND LOGO



Objective of this Workshop is to encourage students to find the balance between Ethos, Pathos and Logos, which means Intelligence, Emotions and Logic. The Workshop helps the students to feel, understand, empathize and identify problems and solutions.

G. Senthil Kumar, Founder of MADIEE Games, with his team Bharath, brought to the students a very interesting way to test their Teamwork, Leadership, Intelligence through Word Association Tests, Emotions and Logic through Gamified Modules – Red Card and Blue Card Game & Diffusing Bombs using Code generated by Word Association.

All the students were split into different teams and each team had a very particular task and objective, through which they have learnt the concept of Ethos, Pathos and Logos.



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 what's 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 is planned for Day 2.



The Objective of Day 1 is to broaden the mindsets of the students and help them explore the different possibilities and different ways to connect with each other and with their teachers.

DAY 2 – SESSION 1 – INFINITE ENGINEERS

DESIGN THINKING WORKSHOP

- **Empathize** **M.A. Aravind, Cofounder, Infinite Engineers**
- **Define** detailed the following steps on the board and
- **Ideate** taught the students the process of Design Thinking
- **Prototype** The Workshop enabled the students to get Hands-ON with each step of the process.
- **Test**

Activity: Building a Maze - A Labyrinth which will be solved by Other Teams.

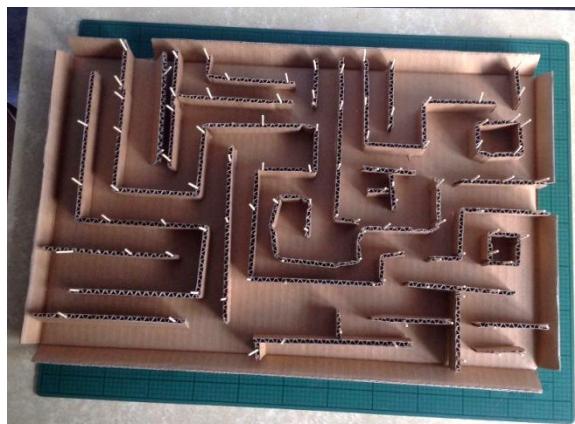
Each Team is provided with Materials Kit to Build a Maze that is difficult for the other team to solve – Point Based Activity.

Ideating the Labyrinth and Planning the Prototype



Test for Each Team to Solve the Labyrinth Puzzle –





Each Team will try to solve the labyrinth puzzle created by the other team and the time in which each puzzle is solved is noted by the Trainer Th. M.A. Aravind with the help of the District Captains.

By Solving the Puzzle, the students have learnt that the prototype that they have created from ideating and planning is to be tested by others. Upon testing, the students will see the results whether their plan is working or not. They will receive feedback from each team and then start the process of making better ideas and better execution as well. The District Captains – M.J.Sivasathya, Vanjinathan.P, J Vigneshwaran, M Lingaraj of Padian Saraswathi Yadav Engineering College, Sivagangai and AURCM Students supported Infinite Engineers during the entire session.



The Following is the Journey of the Student in 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

DAY 2 – SESSION 2 – E21 – IIT Madras

Objective: Idea Generation - Brainstorming - Concepts of Innovation - Introduction to Entrepreneurship - Converting Problem Statement & Solution to a Valid Business Model - Business Model Canvas & Art of Pitching.



**Interactive Session on Defining Problem Statements
and Identifying Solutions by Ms. Hanusha Selvam from E21- IIT-M**

Brainstorming of Ideas

Students are encouraged to think as if there is NO BOX at all.



An Idea is neither good nor bad; it just needs the right actions to make it a reality. The ideas are generated for a problem statement that is defined by the Students. They further explore the concept of Ethos, Pathos and Logos during this process.

The District Captains Logesh Kumar.P, Muthu Vignesh.N Sivapriya.S, Reeshma Fathima.R of Thiagarajar College of Engineering supported each team of students during the entire session.

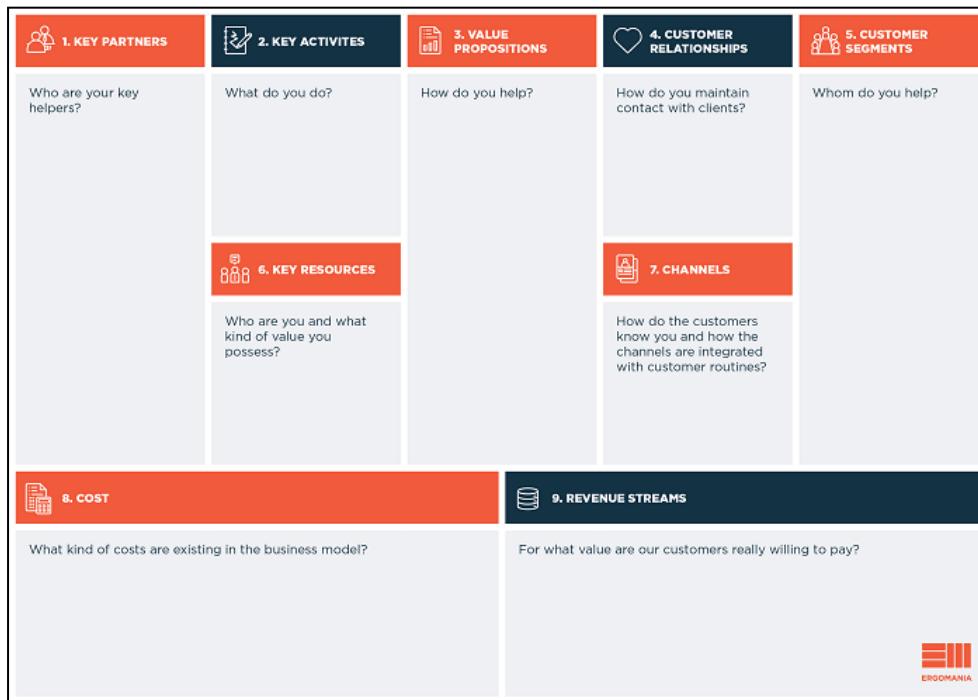
Business Model Canvas

Converting Problem Statement & Solution to a Valid Business Model



The Students understood the concept of Business Model Canvas by working out examples of Business Models of Prominent Startups such as Swiggy and Ola. Hanusha and the District Captains further explained how to pitch their innovative ideas by making presentations through videos and by mentoring the ideas of each group.

Credit goes to the Team of E21, for their efforts made the students ready for the Final Pitch on 12.01.2020 and has helped them to think about Innovation and Entrepreneurship with a newly found interest. They have now realized that their science projects could indeed become a viable business to help people and society in the future by taking the necessary steps.



Day 3 – SP Robotics Maker Lab – Hands-On Robotics

SP Robotics Maker Lab Team – D. Vignesh, N. Shyam Sundar, K. Vishal and Hari Narayanan started with how technology can be used to solve different problems in Real Life and took a session on the Fundamentals for Robotics in Tamil and English. Credit goes to SP Robotics Maker Lab team for they have taken the concept of Robotics to each Government and Government aided school student in a language that is easy for them to understand and has thus created the spark necessary for future innovators.



Following the Hands-On Robotics Session, the students were asked to define their Idea, problem statement and their solution which can either be solved using Technological or Non Technological methods. (Mentoring Sessions)



**Hands - ON
Session**

**Understanding
Basic Robotics
& Mechanics**

**Learning by
Doing**



After the completion of the Hands-On session of Robotics, the students were demonstrated how to build, plan and operate DRONES. Drones have a variety of applications from Surveying to Agriculture. Students have now the hands-on experience for Robotics, which could be used to solve a multitude of problems.

After this session, each team was asked to present their problem statement and solution with their pitch presentation and were mentored by SP Robotics Maker Lab team, EDII-TN Team and AURCM Students.

The Agenda for Final Pitch was then presented to the participating students and teachers and the scoring structure has been explained. It is informed that there will be two parallel sessions of Pitch Presentations and the best 6 Schools will be called back for Final Presentation in front of all the judges.

Day 4 - Final Pitch – 12.01.2020

Presentation of Ideas and Business Model Canvas

Ground Floor Training Hall -Batch 1

- M.N.U Jayaraj Nadar Hr.Sec School , Madurai.
- ECN Vidhyala Matric School ,Theni .
- Sree Raja Rajan CBSE School , Amaravathipudur , Sivagangai .
- Soundararaja Vidhyalaya , Dindigul .
- Govt Model Hr Sec School , Puthukottai .
- Vivekananda Matric Hr Sec School, Paundamangalam , Namakkal
- Govt Hr Sec School , Ayyur , Madurai .
- GHSS ,Kasipalayam , Dindigul .
- Govt Boys Hr Sec School , Aranthangi .
- Selvam Hr Sec School , Namakkal .
- SBOA Matric Hr Sec School , Madurai .
- Theni Melapettai Hindu Nadar Uravinmurai Matric Hr Sec School.
- Panchu Valliyappa Matric Hr Sec School, Sadayanikadu , Sivagangai.
- Govt Boys Hr Sec School, Vadamadurai , Dindigul

First Floor Conference Hall - Batch 2

- Koodakovil Nadars Hr Sec School , Koodakovil , Madurai .
- V.M. Govt Boys Hr Sec School , Periyakulam , Theni .
- Kallal Murugappa Hr Sec School , Sivagangai .
- Bedford Academy Mat Hr Sec School , Dindugal .
- Govt Boys Hr Sec School , Keeranur , Puthukottai
- Govt Hr Sec School ,Cauvery Rs , Pallipalayam , Namakkal
- SPJ Matric Hr Sec School , Madurai .
- GHSS Kambilampatti , Dindigul
- Govt Boys Hr Sec School , Keeramangalam , Pudukottai
- SPM Hr Sec School , Namakkal
- Govt Boys Hr Sec School, Alangudi , Pudukottai .
- Kalaimagal Mat Higher Secondary School, Namakkal.
- GHSS Usilampatti , Dindigul
- Vidhya Nikethan Mat Hr Sec School , Rasipuram , Namakkal

JUDGING CRITERIA

- | | | |
|--------------------------------------|---|----------|
| • Problem Statement | - | 10 Marks |
| • Solution - Idea/Innovation | - | 15 Marks |
| • Pitch Presentation | - | 15 Marks |
| Communication Skill and Approach | | |
| • Social Impact, Benefit to People - | | 10 Marks |
| Business Model | | |
| • Total | - | 50 Marks |

Jury:



From Left

- 1. Th. R. Varatharajan, Founder, Itsmyplan, representing Native Lead Madurai**
- 2. Prof. Dr. V.Malathi, Dean, Anna University Regional Campus Madurai**
- 3. Th. G. Daniel Prabhakaran, Executive, TANSIM, EDII-TN**
- 4. Th. K.Vishal, Chief of Operations, SP Robotics Maker Lab**

Pitch Presentation – Each Team has been provided with 4 Minutes for Pitching and 3 Minutes for Q&A by the Jury.

The students practiced the art of pitching their innovation within the given time of 4 Minutes and have also explored the concept of converting their ideas into business by presenting their Business Model Canvas in the process.



Presentations were made using Charts to spur creativity of the students and to develop their presentation skills. They will rely more on their own presentation rather than computer generated slides and pictures. Also, not all students have the privilege to own laptops or computers to prepare PowerPoint Presentations.



Students presented their ideas, several of which were unique and innovative. The objective of this programme was achieved in making the students think beyond science exhibitions and that their ideas can really be transformed into a viable business.

BEST 3+3=6 TEAMS (BATCH 1 + BATCH 2) WERE SELECTED FOR FINAL ROUND – GROUND FLOOR TRAINING HALL (01:00 PM TO 01:30 PM)

The Schools selected for Final Round of Pitching – Best 6 Schools

- V.M.Government Boys Hr Sec School – Carpentry – Innovation in Cutting Saw Machine and Safety
- ECN Vidyalaya Matric School, Theni – Agro – Automation for Grapes and other Horticultural Crops – Low Cost Economic Model for Farmers
- Kalaimagal Matriculation Hr Sec School, Namakkal – App Platform for Marriages – Features and Facilities for Organizers and Parents. Complete Support for Attendees as well.
- Souadaraja Vidyalaya, Dindigul – Agro-Robot for performing simple agricultural tasks to help farmers.
- SPM Higher Secondary School, Namakkal – Noise Reduction/Impact Absorption Device for Handlooms
- Government Hr Sec School, Kasipalayam, Dindigul – Automatic Retractor and Safety Device for Households to be installed in Terraces for Clothes.



**Valedictory Session - Announcement of TNIIC Madurai Zone Winners
and Certificate Distribution - 03:45 pm to 04:45 pm.**

The Valedictory Session was presided over by respected Dean of AURCM Prof. Dr.V. Malathi, TANSIM/EDII-TN Executive Th. G. Daniel Prabhakaran, Founder & CEO of ItsmyPlan.in, Th. R.Varatharajan, SP Robotics Maker Lab Chief of Operations Th. K.Vishal, APO Sivagangai, Mahalir Thittham Th. V.Anburaja, Respected Faculty of AURCM, Field Coordinator IEDP Alagappa University Th. R. Rajkumar, Field Coordinator IEDP Madurai Kamaraj University Th. Ramachandran, Th. Santanakrishnan, Research Scholar, Anna University CEG and District Captains from TCE and Pandian Saraswati Yadav Engg. College.

Welcome Address by**Th. V. Anbu Raja, Assistant Project Officer Sivagangai, Mahalir Thittham**

Th. V.Anbu Raja has been an integral part in the conceptualizing of Tamil Nadu Ilam Innovators Challenge 2019 and has been the backbone for the operations of the programme ever since its inception. Transferred to Mahalir Thittham, Th. V. Anbu Raja is now the Assistant Project Officer of Sivagangai District.

Th. V.Anbu Raja welcomed the dignitaries on the stage and thanked the almighty, students, parents, teachers and credited the AURCM and EDII-TN team for all the hardwork and efforts taken for organizing the 4-Day Residential Training Workshop.

TANSIM, EDII-TN Team felicitated the Dean of AURCM Prof Dr. V. Malathi and the Jury Th.R.Varatharajan and Th. K.Vishal.



Valedictory Address by Prof. Dr. V. Malathi, Dean, Anna University Regional Campus Madurai

Respected Dean congratulated the students for successfully completing TNIIC Stage 2 Training Workshop and Pitch Presentation and explained the importance of learning about entrepreneurship, business and other life skills from a very young age. The Dean added that the programme successfully achieved its objective of Sowing the seeds of Innovation and Entrepreneurship. Then, the



Dean appreciated the efforts taken by the Government – EDII-TN and School Education Department for taking such an initiative and for their continuous support and hard work for promoting the culture of innovation in the students. The Credit goes to the Faculty and AURCM student volunteer team for successfully organizing the 4 Day Residential Training Workshop for Madurai Zone and the dean added that AURCM is very pleased to collaborate with EDII-TN for future projects and programmes.

Special Address by Th. R.Varatharajan, Founder and CEO, Itsmyplan and Announcement of TNIIC Stage 2 Madurai Zone Winners by Th. G. Daniel Prabhakaran,Executive, TANSIM/EDII-TN



Th. R.Varatharajan encouraged the students to pursue Innovation and that Entrepreneurship can be one of the leading career options when they complete their education. He has shared his experience of his startup journey and his association with Native LEAD organization. Further he appreciated the efforts taken by the students to Pitch their innovative ideas and asked the students to keep searching and learning about life skills.

Following the speech, Th. G. Daniel Prabhakaran representing the Jury announced the Winners of Stage 2 – TNIIC Madurai Zone out of the participating 29 Schools from 6 Districts. He further added that some of the presentations made by the Students are much better than the presentations made by college students.

Winners of TNIIC Stage 2- Madurai Zone→



1. V.M. Government Boys Hr Sec School, Periyakulam (Theni District) -

The students empathised the Carpenter's Work and the dangers of handling Cutting Machine manually. The Cutting Machine during operation has the tendency to repel back and hit the carpenter when he/she loosens their grip on the short handle. The students have added value to the existing machine with long handles and sensors to avoid such accidents.



2. Kalaimagal Matric Hr Sec School (Namakkal District) – Their idea caters to two different customer segments – People who attend Marriages and People who organize them. Their App is called Marriage Map, which provides all the services & contacts for everything related to weddings, party planning and any other event.



3. ECN Vidyalaya (Matric) School (Theni District) – Agriculture – Crop Specific Monitoring System especially catering to vine plants such as Grapes, Jasmine,etc. Disease Prevention, Pest Identification and Agricultural Parameters control system, which is to be installed as per the Farmer's Demand



Feedback

Feedback Forms were circulated with the participating Students and Teachers and were asked to bring to our notice the immediate things that need to be improved upon. The feedback forms were evaluated. The Students and Teachers appreciated the Training Methods and Approaches taken by our partnering Startups. During the Chief Guest Address, the Students and Teachers were asked to speak about their experience and provide their feedback.



Also, Special Mention and Gratitude was shown towards TANSIM, EDII-TN Team, Dean, Prof Dr.V.Malathi, Assistant Prof Dr. R.GopalaKrishan, Deputy Warden for Boys Hostel Dr. K.Karthikeyan and Mr.V.Arun, Deputy Warden for Girls Hostel Dr.P.Umamaheswari, Th. Aravindan Hostel Superintendent, Non Teaching Staff, AURCM Volunteers and District Captains from Thiagarajar College of Engineering and Pandian Saraswathi Yadav Engineering College, who made this programme a grand success by all means.

On an Average from all the Feedback Forms received (Out of 5)

1 = Poor 2= Satisfactory 3= Average 4= Good 5= Excellent

Overall Experience	-	4.5	Overall Learning	-	5
Stay (Room)	-	4	Food & Snacks	-	5
Hall & Classroom	-	4.5	Information Updates-	-	4



Travel Arrangements were made by EDII-TN for the participating students and teachers from AURCM, Keelakuilkudi, Madurai to Mathuthavani Bus Stand via Arapalayam by hiring Mini Buses.

Scope and Benefits

- 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.
- Stage 2 of Tamil Nadu Ilam Innovators Challenge 2019 has achieved the objective of creating the Growth Mindset required to seek new challenges and learn new things, continuously pursuing their passion and interest. Irrespective of Win or Fail, The Students have started thinking as an Innovator and an Entrepreneur.

- 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. **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 enabled the team to get **Ground Level Data on 120+ 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.**

**TAMIL NADU ILLAM INNOVATORS CHALLENGE 2019 – STAGE 2 – MADURAI ZONE****09.01.2020 TO 12.01.2020**

SPECIAL THANKS AND APPRECIATION TO TNIIC DISTRICT CAPTAINS

LOGESH KUMAR P	THIAGARAJAR COLLEGE OF ENGINEERING, MADURAI
MUTHU VIGNESH N	
S SIVAPRIYA	
REESHMAN FATHIMA R	
M J SIVASATHYA	PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE, SIVAGANGAI
VANJINATHAN P	
J VIGNESHWARAN	
M LINGARAJ	

SPECIAL THANKS AND APPRECIATION TO AURCM STUDENT TEAM

B.E. CIVIL	B.E – ECE	B.E. CSE
K. DINESH KUMAR	P. SIVAKUMAR	M. VIMAL RAJ
M. SANTHOSH	M. SRIRAMA MADUSUTHANAN	J. R. VASANTH RAJ
H. ARAVINTH	S. NAVEEN	K. SARAVANA KUMAR
J. ATHISAYAM	B. ASWIN VIGNESH	K. L. RAHURAM
K. SUDHARSANA RAMAN	N. GOPINATH	G. MADHUMITA
S. SUBISH	K. V. P. KANISHKAR RAM	R. JAYASRI
P. PRAKASH	A.SADEESH	P. VISHNUPRIYA
V. BAVAN SUNDAR	R. K. PADMA PRABHU	S. KOWSALYA
G. NAresh	S. MAHESWARAN	B. ABIRAMI
M. KARTHIKEYAN	R. SRINIVASA RAGAVAN	B. C. VIGNESH
B.E. MECHANICAL	P. RHISHIKESH	
M. MAHABOOB SHAMEER	S. KEERTHIKA	
M. MUTHUPANDIRAJA	K. AMIRTHADARSHINI	
M. MANIMARAN	R. MANOJ KUMAR	
B. ANDREW		
B. BERIN		



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Our Partners – The TNIIC 2019 Team

INFINITE ENGINEERS

<http://infiniteengineers.in/>

WARHORSE

<http://warhorse.in>

MADIEE

<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/>