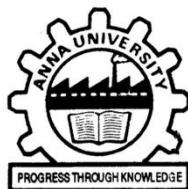




ENTREPRENEURSHIP DEVELOPMENT AND INNOVATION INSTITUTE  
AND SCHOOL EDUCATION DEPARTMENT, TAMIL NADU



## STAGE 2 - TIRUNELVELI ZONE REPORT



## 4-DAY RESIDENTIAL TRAINING WORKSHOP

31.01.2020 - 03.02.2020

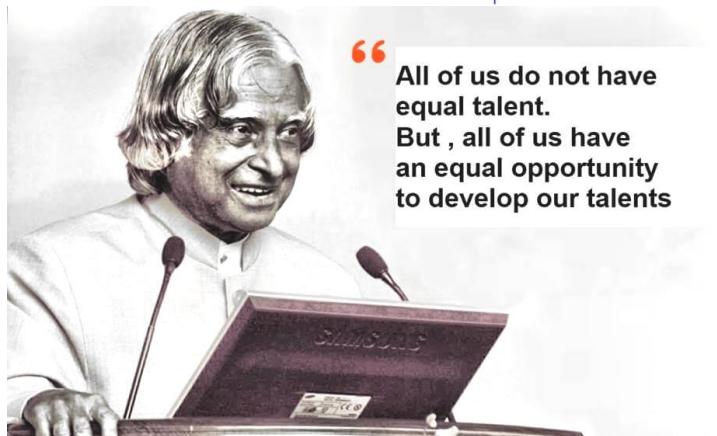
Supported & Organized by

**ANNA UNIVERSITY REGIONAL CAMPUS  
TIRUNELVELI (AURCT) IEDP HUB**

and

**SCAD COLLEGE OF ENGINEERING  
AND TECHNOLOGY**



**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 Tirunelveli**      **Dr. P. Suresh Kumar**
- 6. Joint Director(NSS), School Education Dept.**      **Th. M.Vasu**
- 7. Deputy Director(PMO), EDII-TN**      **Th. R.Shiva Shankar**
- 8. IEDP Tirunelveli Hub Coordinator – AURCT**      **Dr. S. Silas Sargunam**
- 9. Principal, SCAD College of Engg. & Tech.**      **Dr. P. Ebby Darney**
- 10. Asst. General Manager, SCAD Campus**      **Th. J. Monimaran**
- 11. Chief Education Officers of the Districts of Tamil Nadu**
- 12. Head of Department, MBA, SCAD**      **Dr. M.Shanmuga Sundaram**
- 13. Programme Coordinator & Asst. Professor**      **Th. K. Saravanan**
- 14. IEDP Tirunelveli Field Coordinator**      **Th. M. Siva Baarathi**
- 15. 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.



TAMILNADU  
INNOVATORS

இளம்  
CHALLENGE

## TABLE OF CONTENTS

<b>Sl. No.</b>	<b>Description</b>	<b>Page No.</b>
<b>1</b>	<b>About the Programme – TNIIC 2019</b>	<b>6</b>
<b>2</b>	<b>MoU between EDII-TN and School Education Department</b>	<b>7</b>
<b>3</b>	<b>About EDII-TN</b>	<b>7</b>
<b>4</b>	<b>Train The Trainers Programme (T.T.T)</b>	<b>8</b>
<b>5</b>	<b>Stage 1 – Completed Status Report</b>	<b>9</b>
<b>6</b>	<b>Stage 2 – 4-Day Residential Training Workshop – Tirunelveli Zone</b>	<b>12</b>
<b>6.1</b>	<b>Anna University Regional Campus Tirunelveli</b>	<b>13</b>
	<b>6.1.1 SCAD College of Engineering &amp; Technology</b>	<b>14</b>
<b>6.2</b>	<b>Inauguration of Stage 2 – TNIIC 2019</b>	<b>15</b>
<b>6.3</b>	<b>Day 1 – Warhorse and M.A.D.I.E.E</b>	<b>19</b>
<b>6.4</b>	<b>Day 2 – Infinite Engineers, E21 – IIT- Madras and Getset Ventures</b>	<b>25</b>
<b>6.5</b>	<b>Day 3 – SP Robotic Works Maker Lab and Interactive Mentoring Sessions</b>	<b>29</b>
<b>6.6</b>	<b>Day 4 – Final Pitch and Valedictory</b>	<b>31</b>
<b>7</b>	<b>Feedback, Scope and Benefits of the Programme</b>	<b>37</b>



TAMILNADU  
INNOVATORS

இளம்  
CHALLENGE

**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 (21<sup>st</sup> Century Skills) amongst the School Students (8<sup>th</sup> to 12<sup>th</sup>) 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 – 1<sup>st</sup> 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.
- 2<sup>nd</sup> Phase (August to February) – 3 Stages – For School Students of 8<sup>th</sup> to 12<sup>th</sup> 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.



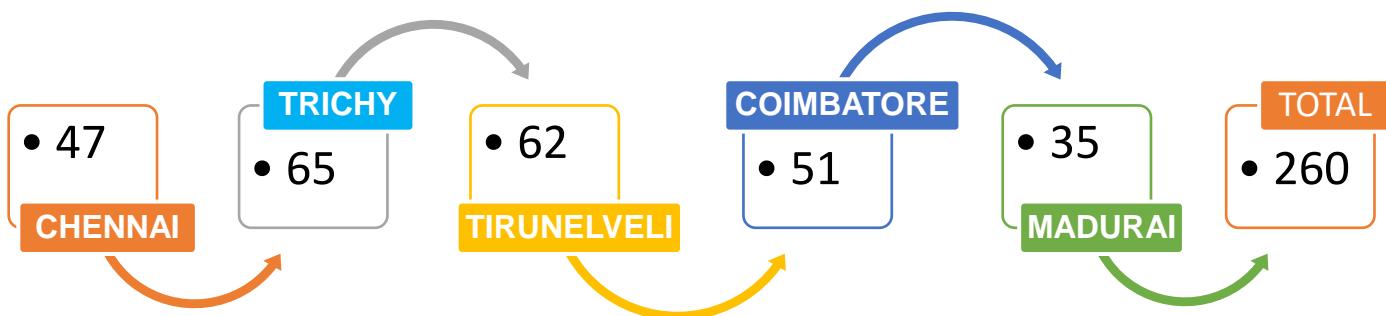
**About EDII-TN - Entrepreneurship Development and Innovation Institute** is a Non-Profit Autonomous Society established by the Government of Tamil Nadu in 2001. Collaborating with corresponding knowledge partners, EDII-TN conducts various training programs, gatherings, mentoring sessions from industry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

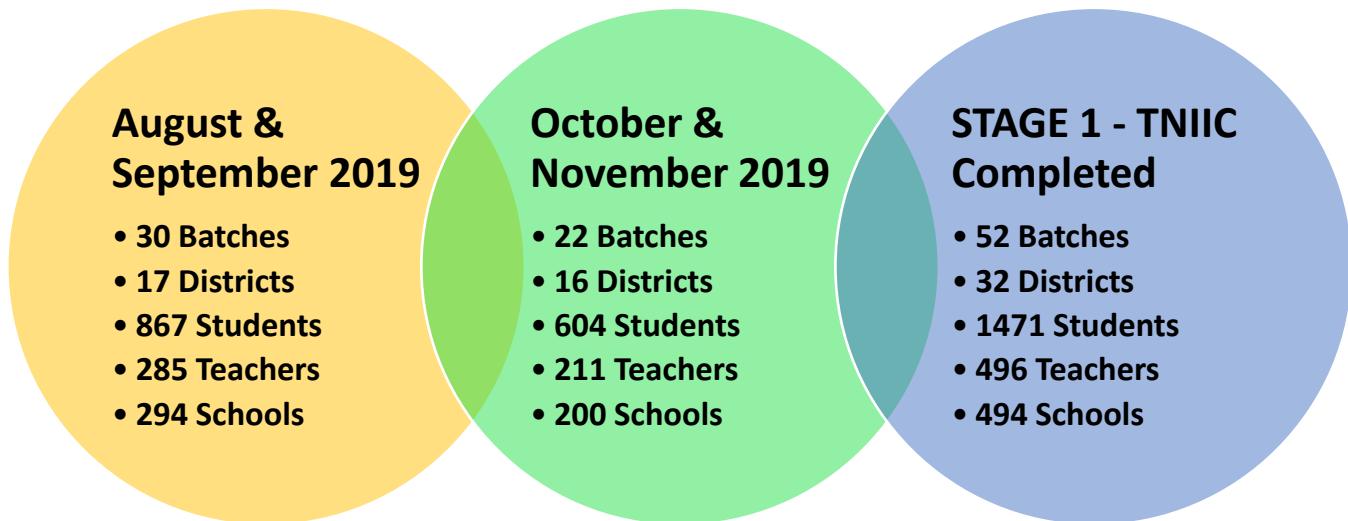
The Selected District Captains were coordinated and supported by Field Coordinators of EDII IEDP Hubs of Chennai, Coimbatore, Salem, Madurai, Trichy, Tirunelveli and Villupuram along with Project Executives of TANSIM/EDII-TN.

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

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

**1<sup>st</sup> Phase – August and September 2019**

**2<sup>nd</sup> 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 (8<sup>th</sup> to 12<sup>th</sup> 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 21<sup>st</sup> 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 21<sup>st</sup> 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.



**TAMILNADU  
INNOVATORS**

**இளம்  
CHALLENGE**

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
<b>Total</b>			<b>52</b>	<b>494</b>	<b>1471</b>	<b>496</b>	<b>159</b>

## 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.

**TIRUNELVELI ZONE / HUB**
**Anna University Regional Campus Tirunelveli (AU-RCT)**


Anna University Regional Campus - Tirunelveli is serving as a hub for Entrepreneurship Development and Innovation Institute, Chennai since May 2017 and has consistently performed as one of the best IEDP Hubs under the leadership of Dr. S. Silas Sargunam, Deputy Director, Affiliations and Hub Coordinator and his team which includes Th.

M. Siva Baarathi, Field Coordinator. Anna University Tirunelveli region comprises of the four southern districts of Tamilnadu namely Tirunelveli, Thoothukudi, Kanyakumari and Virudhunagar. A number of programmes have been organized for improving the technical and entrepreneurial skills of the students in the region, having created more than 60+ Entrepreneurship Cells in as many colleges.

A Letter of Request dated 16.12.2019 was submitted to the Dean of Anna University Regional Campus Tirunelveli for conducting the Stage 2 – 4-Day Residential Training Workshop for Tirunelveli Zone/Hub by Anna University Regional Campus Tirunelveli. SCAD College of Engineering & Technology, Cheranmahadevi was selected as the venue by AURCT as it has the necessary infrastructure and facilities to accommodate 120+ participants.

The following table lists the Number of Schools and Students from 5 Districts that come under Tirunelveli 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	TIRUNELVELI	Ramanathapuram	5	6	18
2		Virudhunagar		6	18
3		Tirunelveli		6	16
4		Thoothukkudi		6	18
5		Kanniyakumari		3	9
<b>Total</b>				<b>27</b>	<b>79</b>

**SCAD College of Engineering and Technology, Cheranmahadevi**

We greatly appreciate the efforts of Principal, SCAD College of Engg. & Tech., Dr. P. Ebby Darney, Asst. General Manager, SCAD Campus, Th. J. Monimaran, Dr. Shanmuga Sundram, HOD, Management Studies, Th. K. Saravanan, Asst. Professor, Management Studies and team for coordinating the 4-Day Residential Training Workshop at SCAD College of Engineering & Technology.

18 Schools that have participated in the First 4 - Day Residential Training Programme, Schools (52 Students along with 16 Teachers & Parents) and 2 District Captains have opted for accommodation. We sincerely thank SCAD Polytechnic College Vice Principal Th. Murugan, Boys Hostel Warden Th. Sorna Kumar & Th. Arockia Raj, Girls Hostel Warden Tmt. Prabha for making all the possible arrangements for taking care of the participating students and teachers.



Accommodation for EDII Staff and Trainers were arranged at Hotel Sriram, which is nearby Tirunelveli New Bus Stand and AURCT campus. Transportation was arranged for the commute between Tirunelveli New Bus Stand to SCAD College of Engineering & Technology for the students and teachers/parents and utmost care taken SCAD team. Health care facilities were also made readily available 24x7. The Students got the opportunity to stay and explore the magnanimous campus of SCAD group of Institutions and got to understand the various courses they could take for the development of their academia and career.

**Day 1 – Inauguration – 09:45 am – 10:45 am**

**Venue: SCAD Polytechnic Training Hall**

The Inauguration of the Tirunelveli Zone Stage 2 of Tamil Nadu Ilam Innovators Challenge 2019, which is a 4-Day Residential Training Workshop, organized by EDII-TN and ED Cell of Anna University Regional Campus Tirunelveli at SCAD College of Engineering & Technology, Cheranmahadevi, with the support of School Education Department, was held at Training Hall of SCAD Polytechnic College.

**Welcome Address by**

**Dr. P. Ebby Darney, Principal, SCAD College of Engineering & Technology**



With the Blessings of the Almighty, Dr. P. Ebby Darney welcomed the Dignitaries on the Dias and the participating 18 Schools (52 Students and 16 Teachers & Parents) for the Stage 2 of Tamil Nadu Ilam Innovators Challenge 2019. The Principal thanked the support provided by Anna University Regional Campus Tirunelveli and the

guidance given by the Chief Guest Dr. S. Silas Sargunam, Deputy Director, Affiliations and Hub Coordinator for IEDP AURCT Hub. The Principal also thanked Prof. Dr. Lourdes Poobala Rayen for being the pioneer for entrepreneurship development studies in Tirunelveli District and Region.



The Guest of Honour Dr. S. Silas Sargunam, Deputy Director, Affiliations and Hub Coordinator IEDP AURCT Hub was felicitated with a Memento before delivering the Inaugural Address.

**Inaugural Address by Dr. S. Silas Sargunam, Deputy Director, Affiliations , AURCT  
and Hub Coordinator , IEDP AURCT Hub**



Dr. S. Silas Sargunam, Hub Coordinator IEDP AURCT thanked the efforts taken by SCAD College of Engg. and Tech. for organising the programme and further speaking about the programme, the Hub Coordinator appreciated the purpose and objective of TNIIC and motivated the students that the Science Projects that students submit for the Exhibitions need not end there, but they could be transformed into viable business projects and that the students themselves can become entrepreneurs, business man and business woman.

**"Catching them Young" – Young Innovators and Future Entrepreneurs**





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 18 School Teams were split into Two Batches –**

### Batch 1

- Govt High School, Kammalankulam
- Government Higher Secondary School - Sanaveli
- Govt High School, Kumbaram
- Bmc Matric Hr Sec School, Millerpuram, Tuticorin
- Subbiah Vidyalayam Girls Higher Secondary School
- C.M. Higher Secondary School Renganathapuram
- S.L.B Government Hr Sec School, Nagercoil
- V.S.K.Duraiswamy Nadar Matriculation Higher Secondary School, Sivakasi

### Batch 2

- Periyar Govt Hr Sec School Cheranmahadevi
- Sacred Heart Higher Secondary School, Tirunelveli
- Govt Higher Secondary School, Irumeni
- Government High School, Perungulam
- St.Mary's Matriculation School, Ramanathapuram Dt.
- Ravilla K.R.A.Vidhyashram Matric Hr.Sec.School
- Devangar Girls Higher Secondary School, Aruppukottai
- Kamalavati Senior Secondary School, Tuticorin Dt.
- Government Higher Secondary School Pallapatti
- Akdr Boys Hr Sec School, Rajapalayam

### BATCH 1 – AGENDA

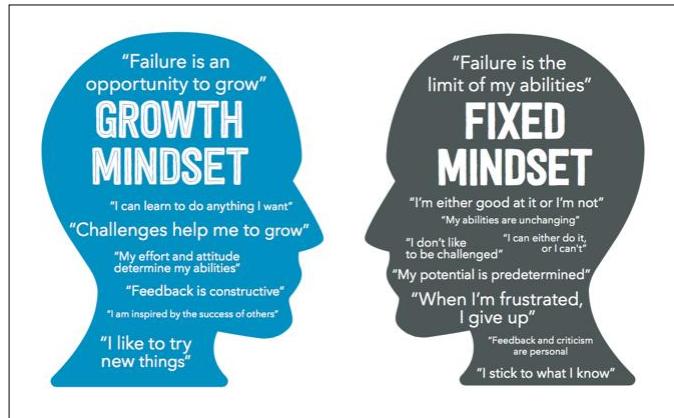
<b>DAY 1</b> <b>31.01.2020</b> <b>SCAD Polytechnic Conference Hall</b>	<b>INAUGURATION</b> <b>09:30 AM – 10:30 AM</b>	<b>SESSION 1</b> <b>10:30 AM – 01:00 PM</b> <b>WARHORSE GROWTH MINDSET WORKSHOP</b> <b>Focus on Student's Communication Skills, Confidence and Personality Development.</b>	<b>LUNCH</b>	<b>SESSION 1 (contd.)</b> <b>02:00 PM – 2:30 PM</b> <b>WARHORSE GROWTH MINDSET WORKSHOP</b> <b>Focus on Student's Communication Skills, Confidence and Personality Development.</b>	<b>SESSION 2</b> <b>02:30 PM- 05:30 PM</b> <b>M.A.D.I.E.E ETHOS, PATHOS &amp; LOGOS</b> <b>Focus on Student's Empathy, Mindset, Social Consciousness incl. Liberal Arts</b>
<b>DAY 2</b> <b>01.02.2020</b> <b>SCAD Polytechnic Conference Hall</b>		<b>SESSION 1</b> <b>09:30 AM – 01:00 PM</b> <b>INFINITE ENGINEERS</b>  <b>DESIGN THINKING WORKSHOP</b> <b>Empathy, Problem Identification and Solution – Critical Thinking</b>	<b>01:00 PM - 02:00 PM</b>	<b>SESSION 2</b> <b>02:00 PM – 5:00 PM</b> <b>E21 &amp; GETSET VENTURES</b>  <b>ENTREPRENEURIAL SKILLS</b> <b>Innovation, Idea 2 Prototype, Product Market Fit &amp; Pitch Presentation</b>	
<b>DAY 3</b> <b>03.02.2020</b> <b>SCAD Polytechnic Training Hall</b>		<b>SESSION 1</b> <b>09:30 AM – 01:00 PM</b> <b>SP ROBOTIC WORKS MAKERLAB</b>  <b>HANDS-ON SESSION - Identifying Problem Solutions using Technology (Incl. IOT, AI and Robotics)</b>	<b>LUNCH</b>	<b>SESSION 2</b> <b>02:00 PM – 4:30 PM SP ROBOTIC WORKS MAKERLAB</b>  <b>Identifying Problem Solutions using Technology ( Incl. IOT, AI and Robotics)</b>	<b>SESSION 3</b> <b>04:30 PM - 05:30 PM</b> <b>SP ROBOTICS MAKER LAB &amp; EDII-TN</b> <b>DEBRIEFING &amp; PREPARATION FOR FINAL PITCH</b>

### BATCH 2 – AGENDA

<b>DAY 1</b> <b>31.01.2020</b> <b>SCAD Polytechnic Training Hall</b>	<b>INAUGURATION</b> <b>09:30 AM – 10:30 AM</b>	<b>SESSION 1</b> <b>10:30 AM – 01:00 PM</b> <b>M.A.D.I.E.E ETHOS, PATHOS &amp; LOGOS</b> <b>Focus on Student's Empathy, Mindset, Social Consciousness incl. Liberal Arts</b>	<b>LUNCH</b>	<b>SESSION 1 (contd.)</b> <b>02:00 PM – 2:30 PM</b> <b>M.A.D.I.E.E ETHOS, PATHOS &amp; LOGOS</b> <b>Focus on Student's Empathy, Mindset, Social Consciousness incl. Liberal Arts</b>	<b>SESSION 2</b> <b>02:30 PM- 05:30 PM</b> <b>WARHORSE GROWTH MINDSET WORKSHOP</b> <b>Focus on Student's Communication Skills, Confidence and Personality Development.</b>
<b>DAY 2</b> <b>01.02.2020</b> <b>SCAD Polytechnic Training Hall</b>		<b>SESSION 1</b> <b>09:30 AM – 01:00 PM</b> <b>E21 &amp; GETSET VENTURES</b>  <b>ENTREPRENEURIAL SKILLS - Innovation, Idea 2 Prototype, Product Market Fit &amp; Pitch Presentation</b>	<b>01:00 PM - 02:00 PM</b>	<b>SESSION 2</b> <b>02:00 PM – 5:00 PM</b> <b>INFINITE ENGINEERS</b>  <b>DESIGN THINKING WORKSHOP</b> <b>Empathy, Problem Identification and Solution – Critical Thinking</b>	
<b>DAY 3</b> <b>03.02.2020</b> <b>SCAD Polytechnic Training Hall</b>		<b>SESSION 1</b> <b>09:30 AM – 01:00 PM</b> <b>SP ROBOTIC WORKS MAKERLAB</b>  <b>HANDS-ON SESSION - Identifying Problem Solutions using Technology (Incl. IOT, AI and Robotics)</b>	<b>LUNCH</b>	<b>SESSION 2</b> <b>02:00 PM – 4:30 PM</b> <b>SP ROBOTIC WORKS MAKERLAB</b>  <b>Identifying Problem Solutions using Technology ( Incl. IOT, AI and Robotics)</b>	<b>SESSION 3</b> <b>04:30 PM - 05:30 PM</b> <b>SP ROBOTICS MAKER LAB &amp; EDII-TN</b> <b>DEBRIEFING &amp; PREPARATION FOR FINAL PITCH</b>

## 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.Sharat 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 Kaushik Raja and 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

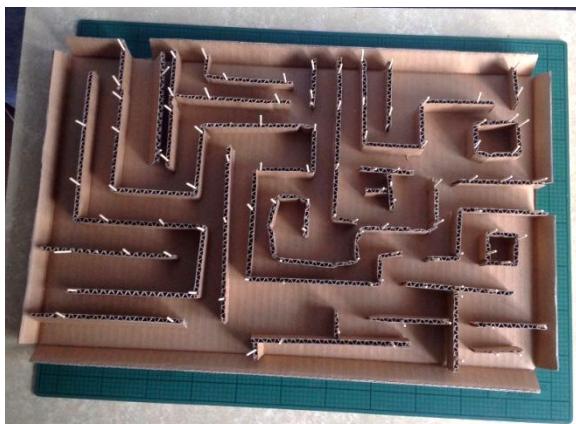
## DESIGN THINKING WORKSHOP

- **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 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 & GETSET VENTURES

**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

Hanusha Selvam, Dhaval Raghwani, Rithik Khulage and Tushar Balani from E21 and Dhanush Ram S from Get Set Ventures

#### 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. The further explore the concept of Ethos, Pathos and Logos during this process.

## 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. Dhanush and Shubham 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 and Getset Ventures, for their efforts made the students ready for the Final Pitch on 03.02.2020 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, SCAD College Management Studies Faculty and EDII-TN staff.



Day 4 - Final Pitch – 03.02.2020

**Presentation of Ideas and Business Model Canvas**

**Session 1 - 09:45 AM to 11:15 AM**

- Periyar Government Hr Sec School, Cheranmahadevi
- Government Hr Sec School, Sanaveli , Ramanathapuram
- Ravilla K.R.A Vidhyashram Matric Hr Sec School, Tuticorin
- SLB Government Hr Sec School, Nagercoil, Kanyakumari
- Subbiah Vidyalam Girls Hr Sec School, Tuticorin
- V.S.K Duraiswamy Nadar Matric Hr Sec School, Sivakasi
- Government Hr Sec School, Irumeni, Ramanathapuram
- BMC Matric Hr Sec School, Tuticorin
- Government Hr Sec School, Pallapatti

**Session 2 - 11:30 AM to 01:30 PM**

- Sacred Heart Hr Sec School, Tirunelveli (Dt.)
- Government Hr Secondary School, Perungulam, Ramanathapuram
- Devanagar Girls Hr Sec School, Aruppukottai, Virudhunagar Dt.
- AKDR Boys Hr Sec School, Rajapalayam, Virudhunagar Dt.
- Government High School, Kumbaram, Ramanathapuram Dt.
- Government High School, Kammalankulam, Tirunelveli
- CM Higher Secondary School, Renganathapuram, Tuticorin
- St. Mary's Matric School, Ramanathapuram Dt.
- Kamalavati Sr Sec School, Tuticorin (Dt.)

**JUDGING CRITERIA**

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

**Jury:****(From Left)**

- 1. Er. T.Karthick, Co Founder, Quantanics Pvt. Ltd.**
- 2. Th. Prakadesh Subramanian, CEO, Killikulam Agribusiness Incubator Forum**
- 3. Tmt. R.V. Shajeevana, Additional Director, EDII-TN**
- 4. Dr. Lourdes Poobala Rayen, Professor, Entrepreneurship, Master of Business Administration and ED-Cell Coordinator.**



Before starting the Final Pitch, Words of Encouragement was given to the students by both Dr.Lourdes Poobala Rayen and Additional Director of EDII-TN. It was much needed motivation for the students to calm down and focus on making the best pitch presentation possible and to determine the way forward for their future.

Additional Director, Tmt. R.V. Shajeevana further explained that students will continue to receive support for entrepreneurship development when they pursue college education as well through the 350+ active E-Cell established by EDII-TN under IEDP.

**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.



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

The Valedictory Session was presided over by respected Dean of AURCT Prof. Dr. P. Suresh Kumar, AURCT- IEDP Hub Coordinator Dr. S.Silas Sargunam, Principal of SCAD College of Engineering & Technology Dr. P. Ebby Darney, Assistant General Manager of SCAD Group, Th. J. Monimaran, Head of Management Studies Dr. M.Shanmuga Sundaram, Assistant Professor and Programme Coordinator Th. K.Saravanan , Field Coordinator IEDP AURCT Th. M.Siva Baarathi and Honourable Jury of the Final Pitch Session.

**Welcome Address by****Dr. P. Ebby Darney, Principal, SCAD College of Engineering & Technology**

Dr. P. Ebby Darney welcomed the dignitaries on the stage and thanked the almighty, students, parents, teachers and credited his team for all the hardwork and efforts taken for organizing the 4-Day Residential Training Workshop. Respected Principal then felicitated the Chief Guest, Respected Dean of AURCT Dr. P. Suresh Kumar and Th. J.Monimaran, AGM SCAD felicitated Dr. S. Silas Sargunam, Deputy Director, Affiliations and IEDP Hub Coordinator.



### Valedictory Address by Chief Guest

**Dr.P.Suresh Kumar, Dean, Anna University Regional Campus Tirunelveli**



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. Sowing the seeds of Innovation and Entrepreneurship

is the objective of the programme. He appreciated the efforts taken by the Government - EDII-TN through IEDP AURCT Hub 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.

### Announcement of TNIIC Stage 2 Tirunelveli Zone Winners

Out of the participating 18 Schools from 5 Districts, The following 3 Schools were selected by the Jury as the Winners for Stage 2 - Tamil Nadu Ilam Innovators Challenge 2019 - TIRUNELVELI Zone. Respected Jury, Dr. Lourdes Boopala Rayan along with Th. Prakadesh Subramaniam and T.Karthik credited all the teams for their first step towards innovation coupled with entrepreneurship and announced the winners for Stage 2 - Tirunelveli Zone.





**1. SLB Government Hr Sec school, Nagercoil -Emergency Crash Locator** - A device which could be programmed to measure the impact and send alert messages with precise location of the crash site to all nearby hospitals and police stations.



**2. Government Higher Secondary School, Irumeni, Ramanathapuram District** – CDs Compact Disks were wound with copper coil and connected with diodes and capacitors in series to generate enough power to light a lamp - Their problem statement is targeted for the coastal villages and interior areas of Ramanathapuram Dist and they also have tested the prototype.



### **3. Devanagar Girls Hr Sec School, Aruppukottai, Virudhunagar District -**

Special Aid for Hearing Impaired People which notifies the riders of incoming vehicles on left or right with vibration alert on the respective handles. They have extended their use case to determine the proximity of bikes or vehicles in the blind spots of buses and trucks as well.

#### **Vote of Thanks by**

**Dr.S.Silas Sargunam, Deputy Director, Affiliations and Hub Coordinator, AURCT – IEDP Hub, Tirunelveli**



Dr. Silas Sargunam sir congratulated all the students and encouraged them to keep learning, keep generating new ideas and innovations. He has especially thanked the Teachers as they are the ones who deserve the real credit for the success of the programme and the success of the students and concluded the programme with

the Vote of Thanks to everyone who has made this programme the success that it has become in Tirunelveli Zone with special mention to the Respected Dean of AURCT, Dr.P.Suresh Kumar, without whose support IEDP activities could never reach the scale that they have reached in Tirunelveli and surrounding Districts.

## 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 Dr. Shanmuga Sundaram, Dr. K. Saravanan and SCAD Management Coordinators, Non Teaching Staff, IEDP Tirunelveli Hub of AURCT, Volunteers and District Captains, who made this programme a grand success by all means. Travel Arrangements were made by SCAD College by providing access to the College Buses that travel to Tirunelveli and also till Nagercoil.

### **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	Information Updates-	-	4



#### **Special Thanks and Mention to Students of SCAD & District Captains**

Gomathi Kamalam T	SCAD College Of Engineering And Technology
M. Indhuja Devi	SCAD College Of Engineering And Technology
Saranya K	Sri Parasakthi College For Women, Courtallam
Hidayath Muzammil	National College of Engineering, Maruthakulam

#### **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 21<sup>st</sup> 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.**



TAMILNADU  
INNOVATORS

இளம்  
CHALLENGE



For More Details & Information:



Visit our website: [www.tniic.in](http://www.tniic.in)

Facebook Page: [www.facebook.com/tniic2019](https://www.facebook.com/tniic2019)

E-Mail: [tniic@editn.in](mailto:tniic@editn.in) and [tniic2019@gmail.com](mailto:tniic2019@gmail.com)

**Contact:**

Entrepreneurship Development & Innovation Institute (EDII-TN)  
Parthasarathy Street, SIDCO Industrial Estate  
Ekkathuthangal, Guindy, 600 032

**Suhas Darsi, Project Executive**

99622 62295

**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/>