

Institution's Innovation Council

**Design Thinking to Product Development
workshop**

on

27.12.2022

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Faculty Incharge


President/IC


Principal

SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY
Dindigul – Palani Highway, Dindigul – 624 002.

Website: www.ssmiet.ac.in

Institution's Innovation Council

CIRCULAR

21.12.2022

One day Workshop on “Design Thinking to Product Development” is scheduled to be conducted on 27.12.2022. Henceforth, interested students from all disciplines are requested to attend this workshop and get benefitted.

Resource Person:

Dr.S.Vinodh

Professor


Department of Production Engineering

National Institute of Technology

Tiruchirappalli

Date & Time: 27.12.2022 & 10.00 AM – 4.30 PM

Venue: Seminar Hall-I


Dr.K.Vinodh Kumar

Professor/ECE

President/IIC


Ms.N.J Divya, AP/CSE

Mr M.Selwin, AP/Mech

Coordinator /IIC


Principal



SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai, Accredited by NAAC)
Dindigul-Palani Highway, Dindigul - 624 002, Tamilnadu

Institution's Innovation Council



Organizes

Workshop on

Design Thinking to Product Development

Date : 27.12.22(Tuesday) | Time : 10:00 a.m to 04:30 p.m

Venue : Seminar Hall - 1



Resource Person

Dr. S.Vinodh

Professor in Department of Production Engineering,
National Institute of Technology,
Trichirapalli.



President / IIC : Dr. K.Vinoth Kumar, Prof./ECE

**Co-ordinators / IIC : Mrs. N.J Divya, AP/CSE
Mr. M. Selwin, AP/Mech**

**Principal
Dr. D. Senthil Kumaran**

All are Cordially Invited

SSM Institute of Engineering and Technology, Dindigul

Dindigul – Palani Highway, Dindigul – 624 002

(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai, Accredited by NAAC)

Institution Innovation Council

Name of the Program: Workshop on “Design Thinking to Product Development”

Name of the Guest: **Dr.S.Vinodb,**
Professor, Department of Production Engineering,
National Institute of Technology,
Tiruchirappalli, Tamil Nadu

Date & Venue: 27-12-2022 & Seminar Hall - 1

Timing: 10.00 a.m. to 04.30 p.m.

Attendance Sheet

S.No	Register Number Department	Name of the Participant	Signature of the Participant
1.	22RAIO10 (AI-DS)	R-Mohammed Nowfal	Rmdnowfal
2.	22RC5014 (CSE)	A.T. Harivishnuj	A.T. Harivishnuj
3.	22RME001 (MECH)	A.Abdul Rahman	A.Abdul Rahman
4.	22RME007 (MECH)	S. Kaviarasu	S. Kaviarasu
5.	22RME024 (MECH)	R.vasanth Balaji	R.vasanth Balaji
6.	22RME005 (MECH)	V-Daniel RAJ	V-Daniel RAJ
7.	22RELO07 (ECE)	V.Aravindh Kumar	V.Aravindh Kumar
8.	22RELO32 (ECE)	R.Gokulnath	R.Gokulnath
9.	22RELO34 (ECE)	S. Gopinath	Gopinath S.
10.	22RELO17 (ECE)	S. Clement	S. Clement
11.	22RME012 (MECH)	R. Vahakishore	R. Vahakishore
12.	22RME020 (MECH)	V. Sathish Kumar	V. Sathish Kumar

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S.No	Department	Name	Signature
13	22 RME010 (MECH)	A. I. Anwar	A. I. Anwar
14	22 RME015 (MECH)	R. Sudhan	R. Sudhan
15	22 REC001 (ECE)	M. Natheem	M. Natheem
16	22 REC046 (ECE)	M. K. N. K. N. K.	M. K. N. K. N. K.
17	22 REC053 (ECE)	K. Lingesh Kumar	K. Lingesh Kumar
18	22 REC081 (ECE)	P. T. Ram. Prasanth	P. T. Ram. Prasanth
19	22 RBS002 (CSSE)	J. Dhanush Dhanu	J. Dhanush Dhanu
20	22 RBS014 (CSSE)	Monish Babu VM	Monish Babu VM
21	22 RBS066 (CSSE)	R. Sundararaman	R. Sundararaman
22	22 RCS48 (CSE)	V. SARATHY	V. SARATHY
23	22 RCS055 (CSE)	Sugith Kumar Ks	Sugith Kumar Ks
24	22 RCS050	G. Sathish Kumar	G. Sathish Kumar
25	22 RAI009 (AIDS)	Mohammed Ahsan	Mohammed Ahsan
26	22 RAI020 (AIDS)	M. S. Sathish Kumar	M. S. Sathish Kumar
27	22 RBS028 (CSSE)	A. Tharun Prasanth	A. Tharun Prasanth
28	22 RCS094 (CSE)	J. Kafeel Ahmed	J. Kafeel Ahmed
29	22 REC059 (ECE)	S. Muguntha	S. Muguntha
30	22 REC096 (ECE)	R. SHARON	R. SHARON
31	22 REC046 (ECE)	S. Kausal Nayan	S. Kausal Nayan
32	22 REC037 (ECE)	K. Harikrishnan	K. Harikrishnan
33	22 REC056 (ECE)	N. MOHAMED UVAID	N. MOHAMED UVAID

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34.	22REC061(ECE)	MUTHUKAMATCHA.K	Prof.
35.	22REC111(ECE)	THANIAL DISHAKA.R	R. Thanial
36.	22REC115(ECE)	P. SHAM SANTHOSH	Sham
37.	22REC118 (ECE)	A. Vishnu prasad	A. Vishnu prasad
38.	22REC107 (ECE)	H. Srinaga kumaran	H. Srinaga kumaran
39.	22REC120 (ECE)	J. YOGESH.	J. Yogesh
40.	22REC073 (ECE)	M. Parthasarathy Raj	M. Parthasarathy Raj
41.	22REC030 (ECE)	R. GIRIRAJ	R. Giriraj
42.	22REC002 (ECE)	J. Abdul Wahith	J. Abdul Wahith
43.	22RCS036 (CSE)	R. Rakhyanna	Rakhyanna
44.	22RCS027 (CSE)	S. Roshma	S. Roshma
45.	22RCS021 (CSE)	P. Jeya Shri	P. Jeya Shri
46.	22RBS012 (CSBS)	V. Madhumitha	Madhumitha
47.	22RBS011 (CSBS)	H. Kaviya lakshmi	H. Kaviya lakshmi
48.	22RCS038 (CSE)	B. Rithiraa	B. Rithiraa
49.	22RCS034 (CSE)	S. Priganga Sathya Mary	S. Priganga
50.	22RCS025 (CSE)	G. Kanisha	Kanisha
51.	22REC071 (ECE)	Pagalavathi.R	P. Pagalavathi
52.	22RA1015 (AIDS)	R. Poojari	R. Poojari
53.	22RCS009 (CSE)	J. Daya Dharshini	J. Daya Dharshini
54.	22RCS019 (CSE)	J. Jeevitha	J. Jeevitha
55.	22RA1026 (AIDS)	M. Varsha	M. Varsha
56.	22REC003 (ECE)	S. Ignatious Louisana	S. Ignatious

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57	22 REC103 (E/E)	K. Subhagatha	K. Subhagatha
58	22 REC095 (E/E)	J. Sri Shadha	J. Shadha
59	22 REC102 (E/E)	S. Sowmya Vathini	S. Sowmya Vathini
60	22 REC112 (E/E)	S. Upasree	S. Upasree
61	22 REC114 (ME)	T. SANTHOSHI	T. SANTHOSHI
62	22 REC114 (ME)	G. Sathya Sree	G. Sathya Sree

1. N. J. D.
27/12/22
2. P. S.
27/12/22
Event In-charge/IC

66
President/IC

Principal



SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY

Dindigul - Palani Highway, Dindigul - 624 002.



Institution's Innovation Council

Report

Date: 09/01/2022

One day workshop on "Design Thinking to Product development" was conducted on 27/12/22 in Seminar Hall - 1 for I- Year Students from all Disciplines. Event started with Prayer song at 9.30 a.m. As per the agenda Welcome speech was addressed by Dr C.Sujatha HoD of CSE Department welcomes our honourable Chief Guest Dr S Vinodh, Professor in Department of Production Engineering, National Institute of Technology, Trichy and our beloved students.





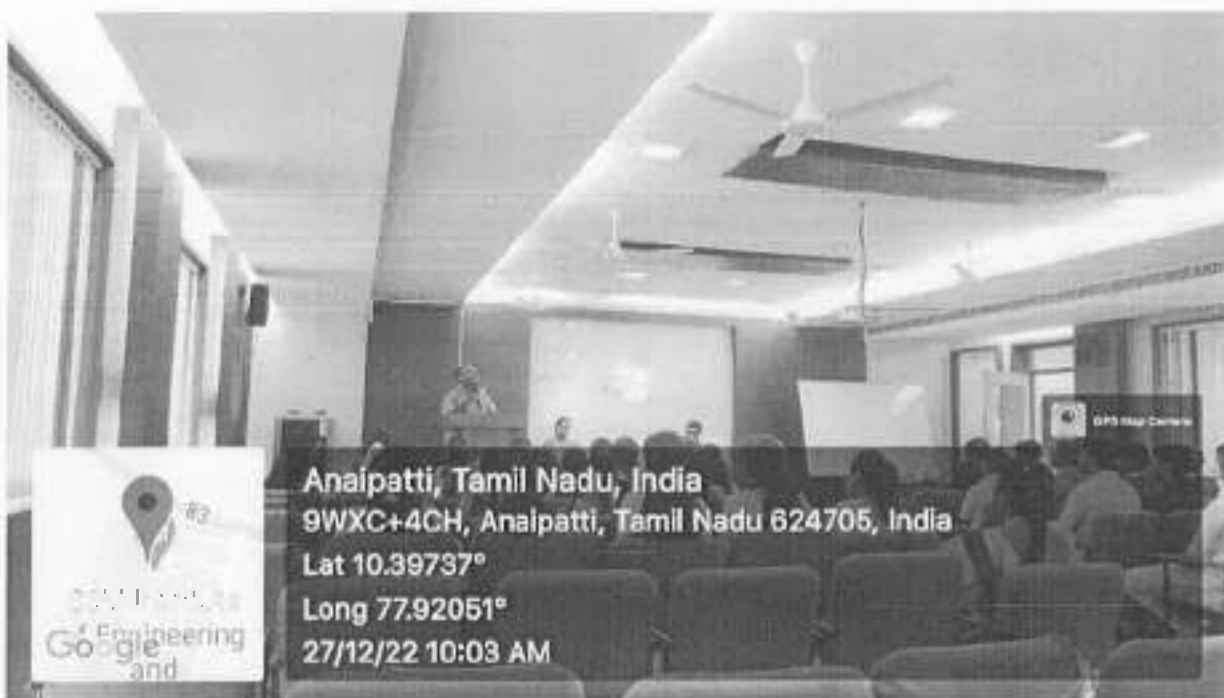
Introduction about the chief guest was given by V.P Rakshitha II Year CSE Department of SSMIET.



After the addressal by Rakshitha, chief guest Vinodh sir was honoured by Dr G.Sankara Narayanan, HoD of mechanical Department by awarding shield to him.



Then chief guest takes over the session by thanking all members of the IIC Cell and the management for providing the opportunity to interact over the students through an IIC and finally thanked him through vote of thanks by Ms N J Divya Event coordinator of IIC cell and played national Anthem.

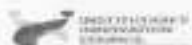




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Invitation

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Verfahren von

Date: 27/12/22 (Tuesday) | Time: 10.00 a.m. to 04.30 p.m.
Venue: Seminar Hall - 1

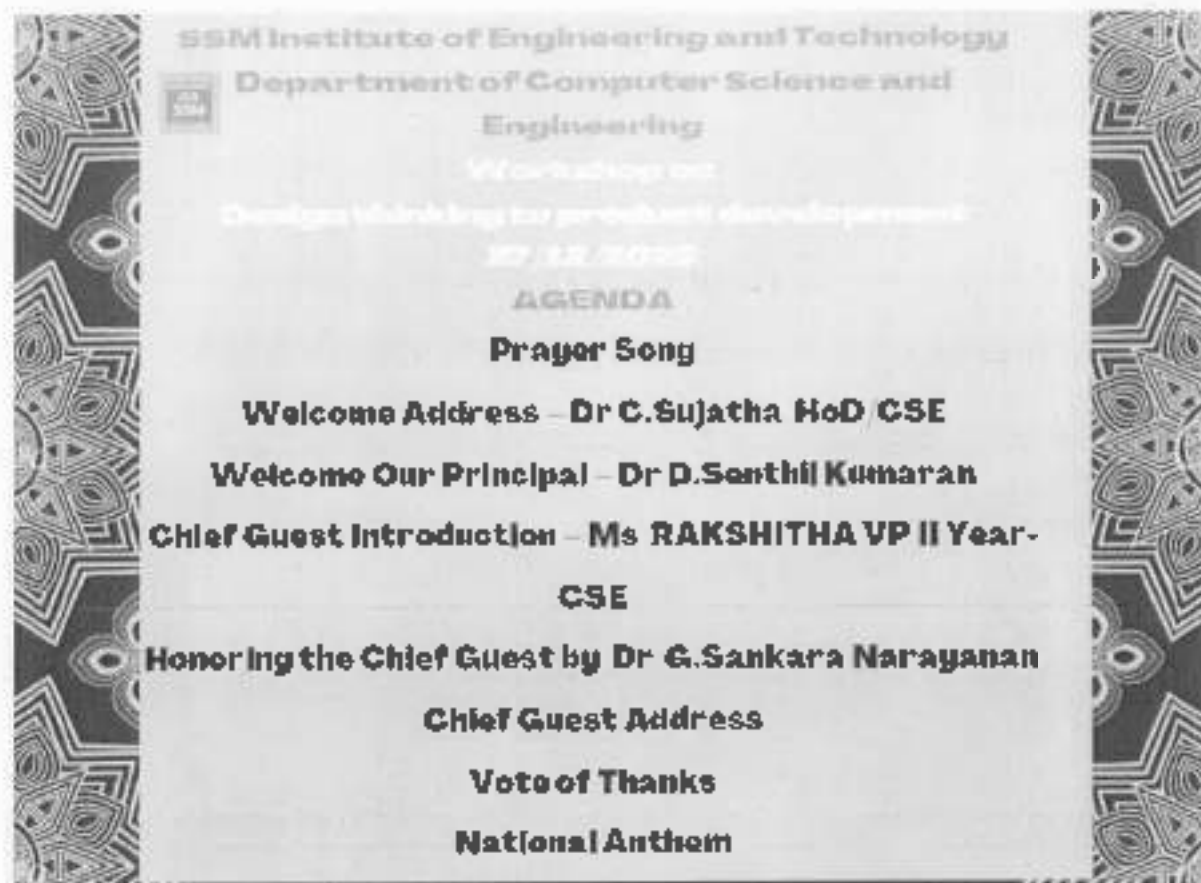
Resource Person

Professor in Department of Production Engineering,
National Institute of Technology
Tiruchirappalli

Dr. K. Vignesh Kumar, Director

Principal
Dr. O. Senthil Kumaran

Agenda:



Syllabus Coverage:

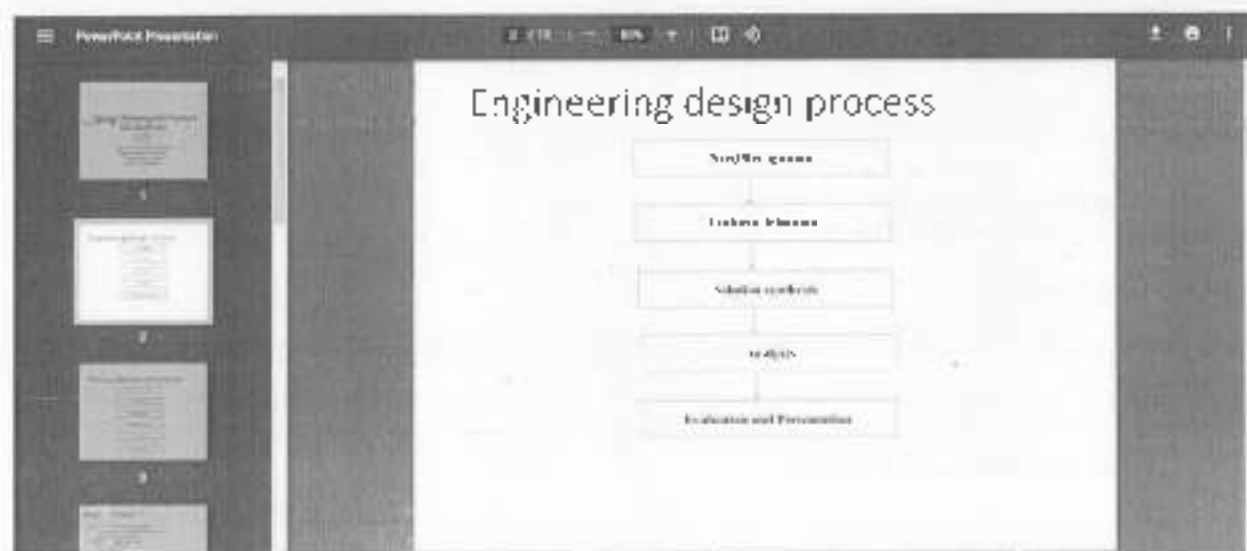
Morning Session:

Time: 9.30 a.m to 1.00 p.m

Topics Covered
Engineering design process
Product development process
What is "S-Curve"
Conducting interviews, Like/Dislike Method
Establishing Engineering specifications
Customer requirement-/Engineering specifications

Function: modeling basics
Basic methods: information gathering and brainstorming
Traditional Brainstorming
Page Charts

Started the session by showing presentation to the students and interacting with the students by asking basic questions on design process to check their depth of knowledge in that field.





After showing the flowchart of how the requirements transformed into design aspect and how it will be converted into product will be explained in detail and ask few examples in real time with the students



PowerPoint Presentation

What is "S-Curve"?

- The graph of S-curve is the industry level
 - The first curve is the industry level
 - The second curve is the industry level
- The third curve is the industry level
 - The fourth curve is the industry level

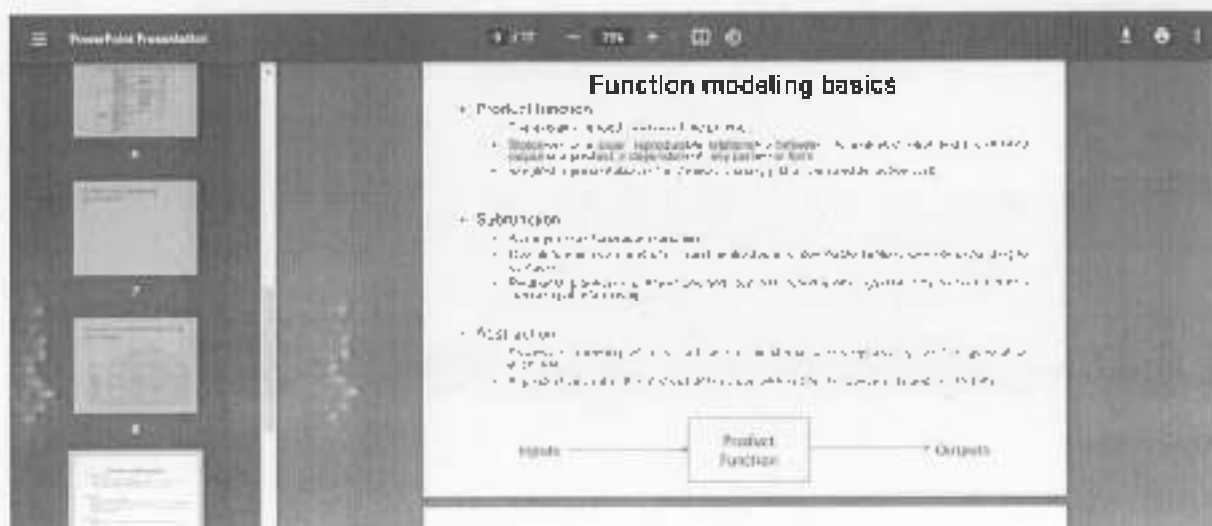
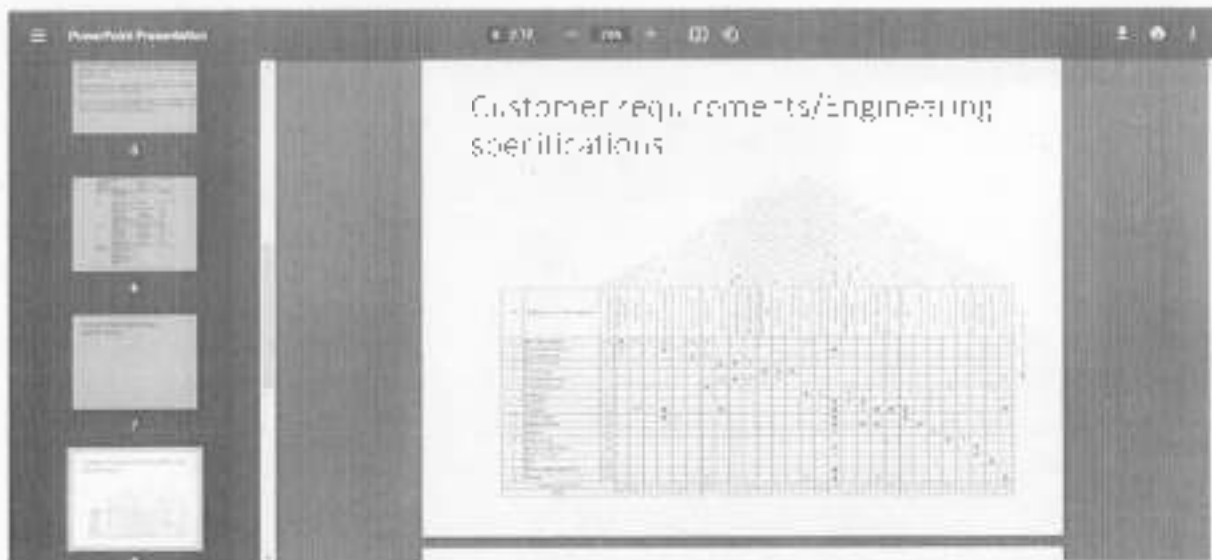
S-curve can provide convincing explanations of why alternative technologies have made substantial inroads against currently dominant technology?



PowerPoint Presentation

Conducting interviews: Like/Dislike Method

- The simplest approach that proves reasonably effective in practice is to interview customers as they use the product. During the interview a team member asks the customer to describe what they like and do not like about the product at their site of usage.
- During this process, more detailed questions may be asked to explore different facets of the product.
- At the same time, a reasonable needs is developed. It is important when holding interviews to have the customers not through their process of using the product.



PowerPoint Presentation

Basic methods : Information gathering and brainstorming

- Concept generation is the divergent development of many alternatives, where the focus is on innovation, structural layout and function satisfaction.
- Formal concept generation methods may be classified broadly as:
- Intuitive and Directed (logical)

PowerPoint Presentation

Traditional Brainstorming

- It is an intuitive method of generating concepts. It focuses on product function and architecture, where team members communicate ideas verbally during a set time period.
- All team members are encouraged to be open and uninhibited during the initial sessions of brainstorming.
- There is no need to strictly adhere to product specifications, but instead to focus on the functional needs of a product.
- The overall aim of brainstorming is to obtain several concepts that might work as solution principles to a piece of the design problem.

PowerPoint Presentation

Pugh Charts

- The Pugh chart evaluation scheme presented earlier involves sets of alternatives, sets of criteria and a better/same/worse evaluation against a datum.
- With the set of alternatives and criteria, there are three basic mathematical tasks that are to be completed



Finally show the morphological analysis chart of each functions we have taken in an bicycle example and showed some solutions also,

Afternoon Session:

Timing: 1.30 p.m to 4:30 p.m

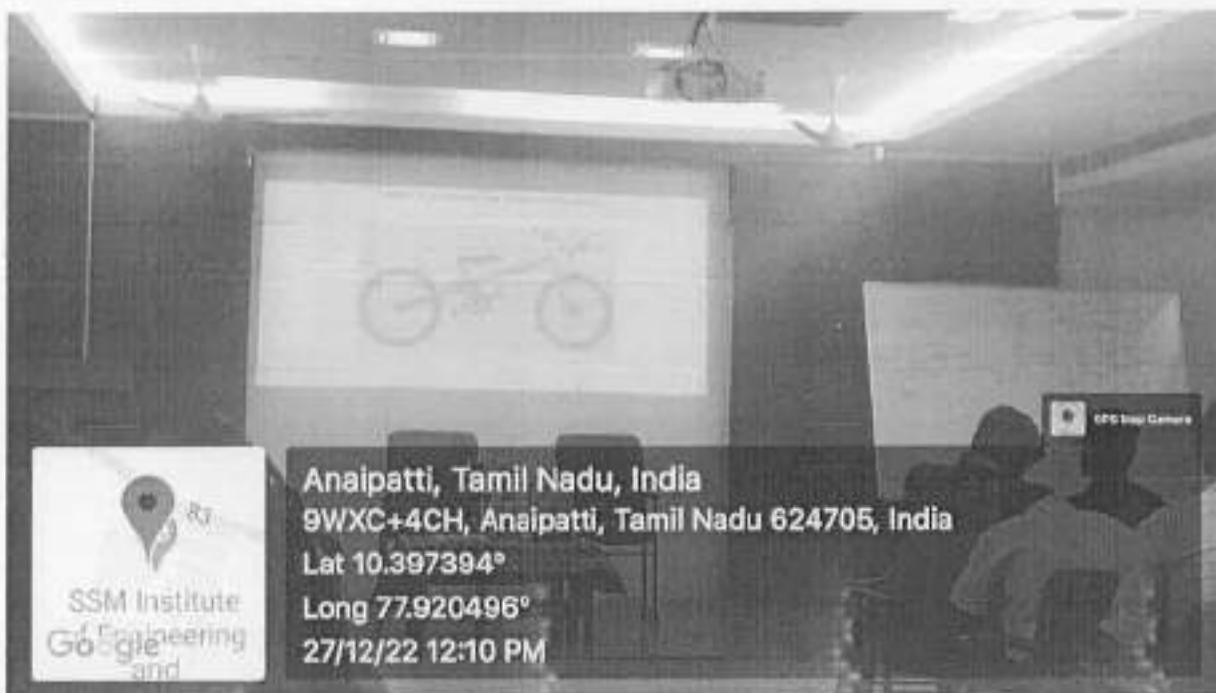
Session was started by splitting the 60 students into twelve teams and each with five members in that and form a round table conference for discussing their ideas with their team members.



Each team chooses their own topic of customer requirements and started to sketch their own design conversion of requirements to product map.

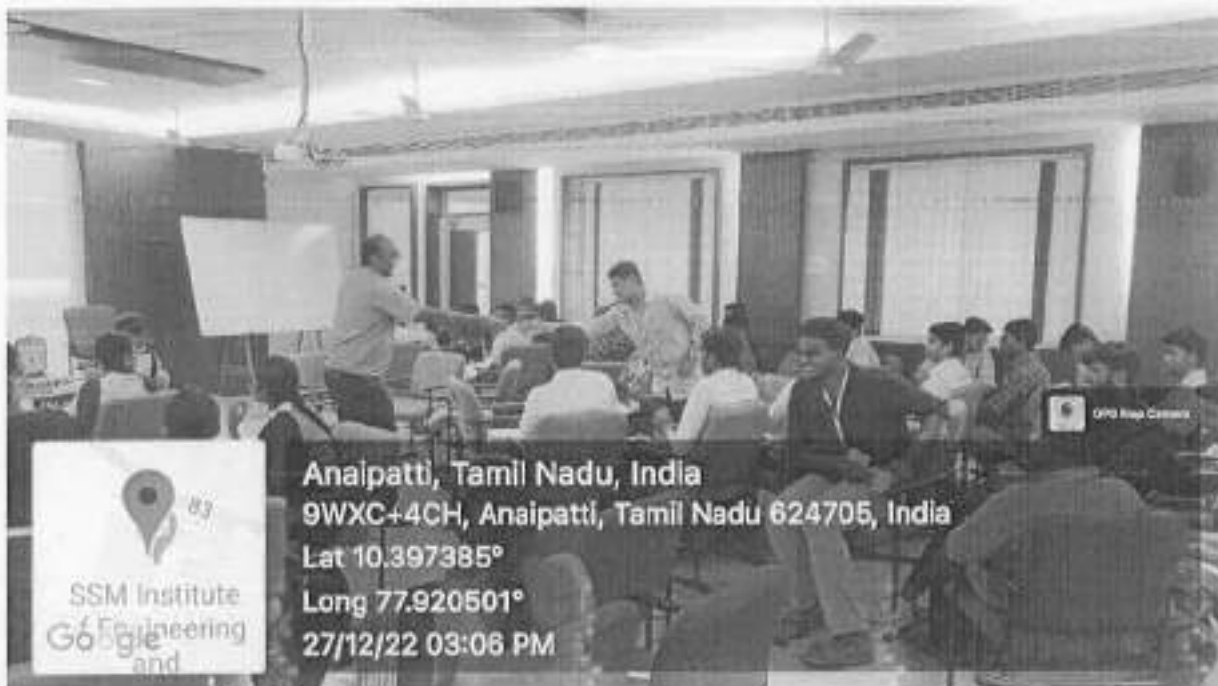


Chief guest shown thier own case study for figuring out how to convert thier ideas into product design like foldable bicycle.



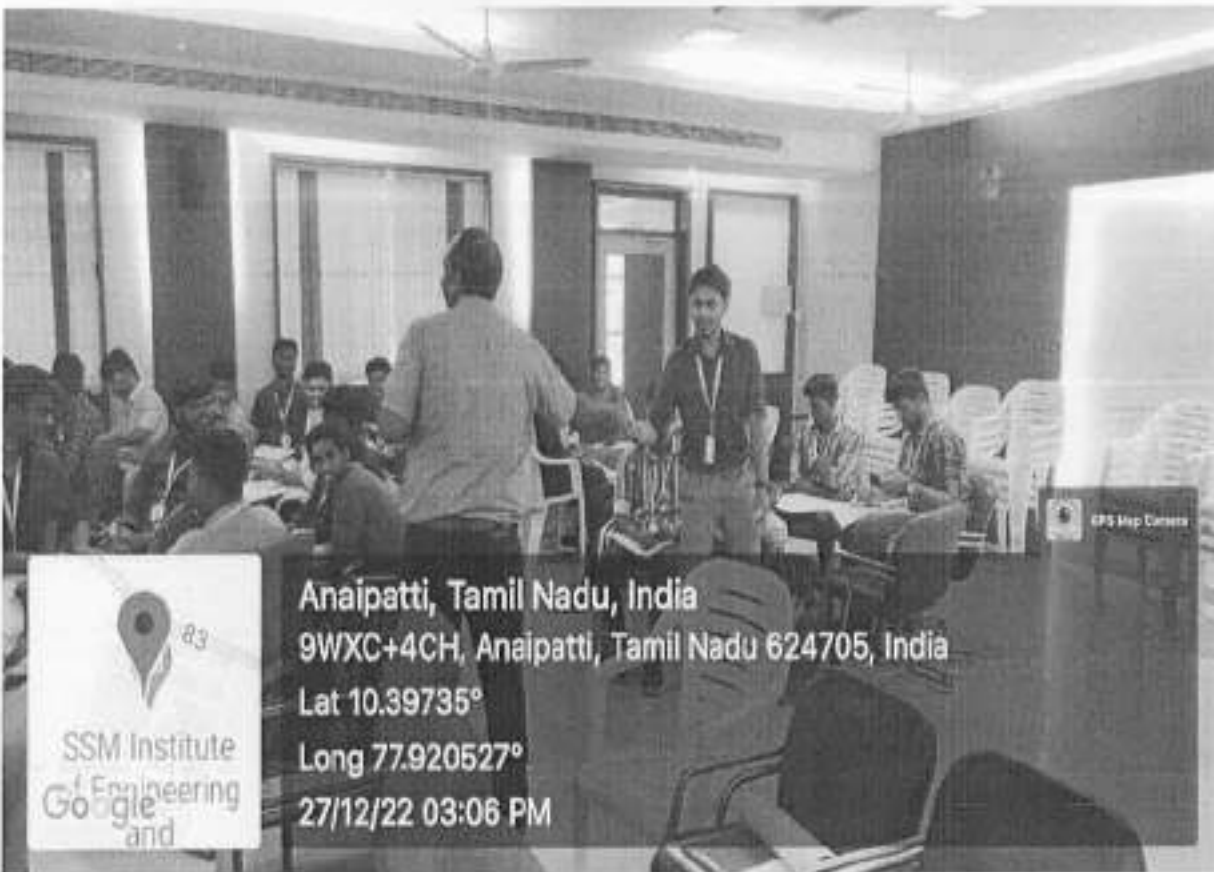
Quiz Session:

After showing the case study to the students a small quiz session was conducted to recollect all the information gathered from morning session. Those who answered well was appreciated by the chief guest and gifted him for that students.





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Students Discussing and Sketching Their own Ideas:



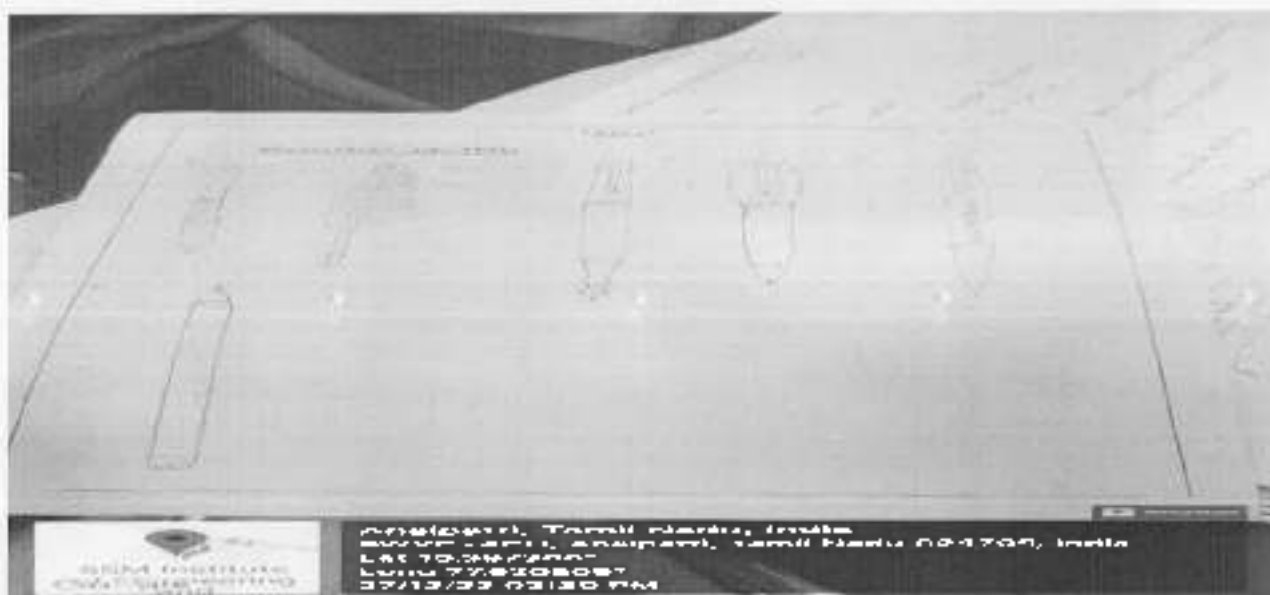
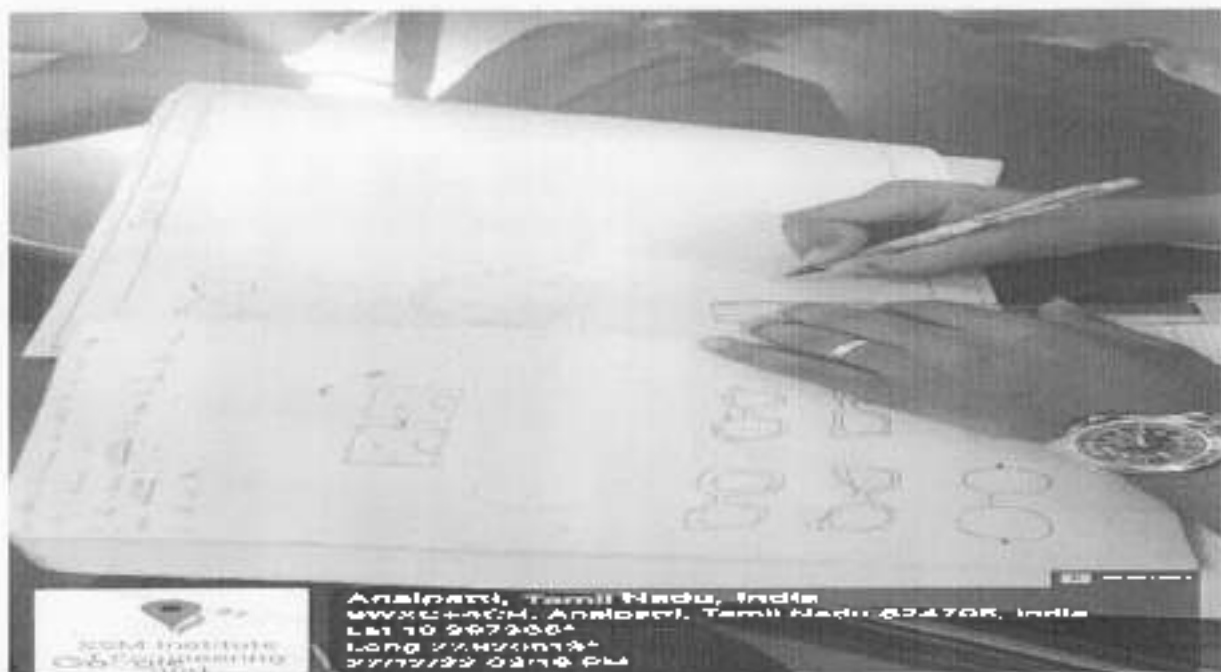


Team	Topic Chosen
Team 1	Ergonomic Chair
Team 2	Smart Switch
Team 3	Smart Fan
Team 4	Traveller shoe(Smart Shoe for Various seasons)
Team 5	Smart Specs
Team 6	Digitalization Helmets

Team 7	KLEXA Air pods
Team 8	Foldable Laptops
Team 9	Smart Pen(Stylo-Merlankous)
Team 10	Smart ID Card
Team 11	Smart Syntax tank
Team 12	Umbrella Table

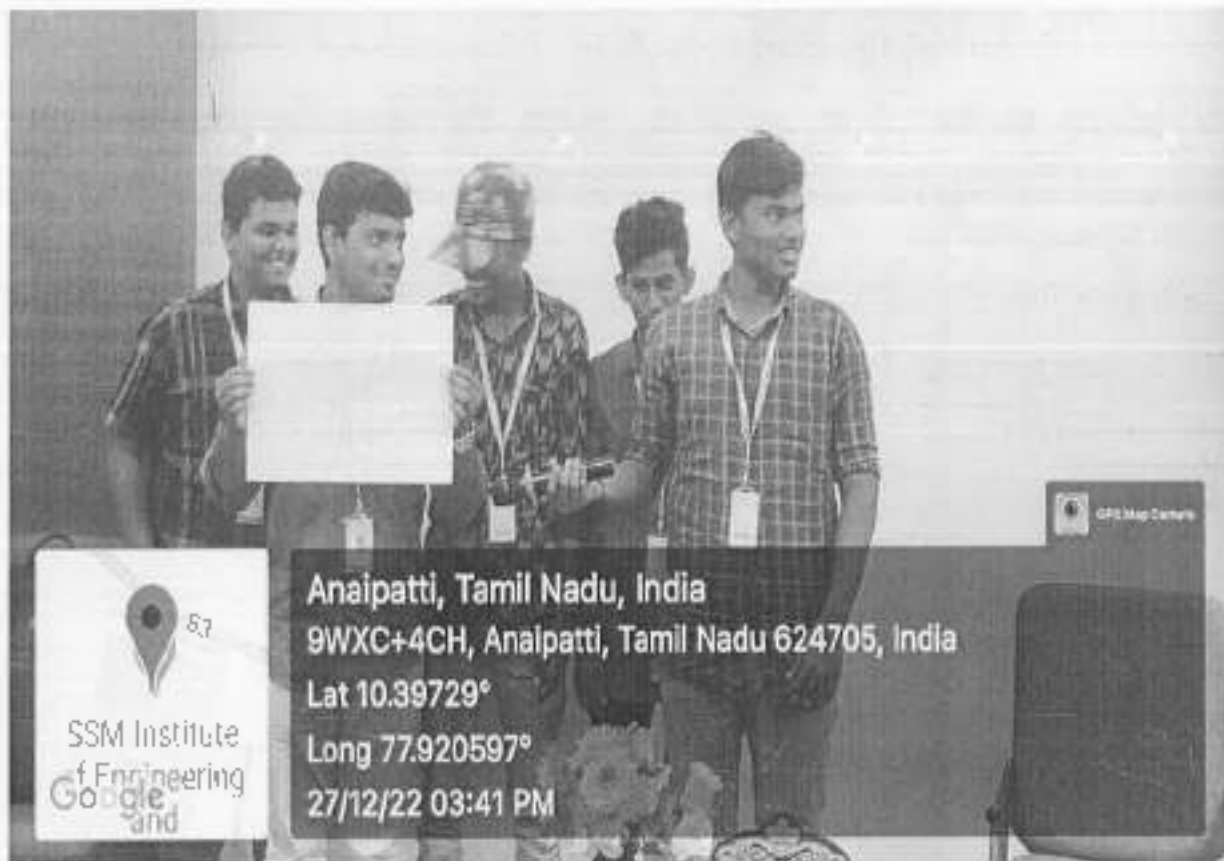
Each team presented their customer requirements and the design of their product to all members.





After sketching their design, presented their design in front of all and told about the advantages.
Features about their product in detail



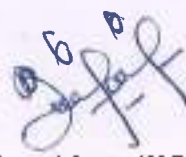




Each and Every point trainer interacts with the students by asking questions and answering them gently. We conclude the workshop by getting feedback from the students and appreciate the efforts taken by the students. We conclude the session at 4.30 p.m and thank the chief guest for thier patience, involvement and core to the knowledge he expressed and motivated the students.

Students learned lot from the session by how simply convert our customer requirements into product and they asked to arrange the detailed marketing strategy also in future


 Event- Coordinators/HIC


 President/HIC


 Principal

Institution's Innovation Council (IIC)

Feedback form

Name of the Program:	Workshop on "Design Thinking to product development"	
Name of the Guest:	Dr S.Vinodh, Department of Production Engineering, National Institute of Technology, Trichy.	
Date & Venue: 27.12.22 & Seminar Hall 1	Timing: 10:00 a.m. to 04 30 p.m.	

- Content delivery by Resource person**
☒ Excellent
☐ Good
☐ Fair
- Resource person's knowledge on content delivered**
☒ Excellent
☐ Good
☐ Fair
- Response of the resource person to students' queries.**
☒ Excellent
☐ Good
☐ Fair
- Whether the session was useful?**
☒ Excellent
☐ Good
☐ Fair
- Overall experience**
☒ Excellent
☐ Good
☐ Fair
- Suggestions/ Comments to improve, if any:**

∴ This session is very useful for me to uplift my professional life

Signature of the Participant

P-T Raam prasanth.

Institution's Innovation Council (IIC)

Feedback form

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- Whether the session was useful?**
☒ Excellent
☐ Good
☐ Fair
- Overall experience**
☒ Excellent
☐ Good
☐ Fair
- Suggestions/ Comments to improve, if any:**

∴ The session was very useful

B. Rithikaa
Signature of the Participant

Institution's Innovation Council (IIC)

Feedback form

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 - ☒ Excellent
 - ☐ Good
 - ☐ Fair
- Overall experience**
 - ☒ Excellent
 - ☐ Good
 - ☐ Fair
- Suggestions/ Comments to improve, if any:**

∴ This way of method is Very Approaching. So continue like this.

D. Dargalambhai
Signature of the Participant

Institution's Innovation Council (IIC)

Feedback form

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1. Content delivery by Resource person

- ☒ Excellent
☐ Good
☐ Fair

2. Resource person's knowledge on content delivered

- ☒ Excellent
☐ Good
☐ Fair

3. Response of the resource person to students' queries.

- ☒ Excellent
☐ Good
☐ Fair

4. Whether the session was useful?

- ☒ Excellent
☐ Good
☐ Fair

5. Overall experience

- ☐ Excellent
☒ Good
☐ Fair

6. Suggestions/ Comments to improve, if any:

∴ The way of speech is good

Priyanka Sathya Mary. S
Signature of the Participant

Institution's Innovation Council (IIC)

Feedback form

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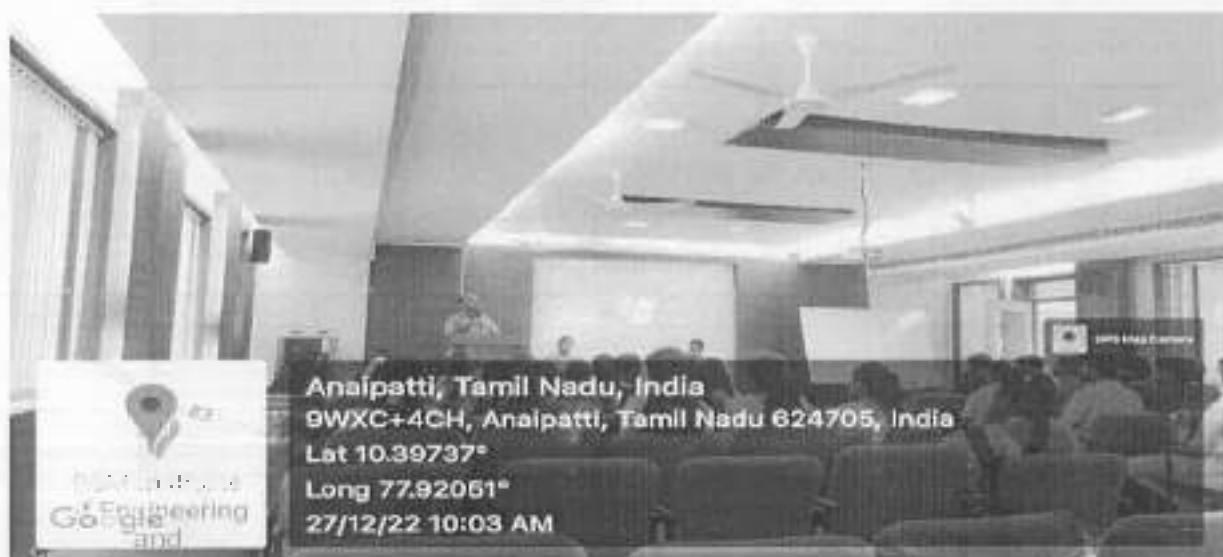
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- Response of the resource person to students' queries.
 - ☐ Excellent
 - ☒ Good
 - ☐ Fair
- Whether the session was useful?
 - ☒ Excellent
 - ☐ Good
 - ☐ Fair
- Overall experience
 - ☒ Excellent
 - ☐ Good
 - ☐ Fair
- Suggestions/ Comments to improve, If any:

∴ We gained more knowledge from this sir, no suggestions sir.
Thank You


Signature of the Participant

**Institution's Innovation Council (IIC)
Workshop Photos**



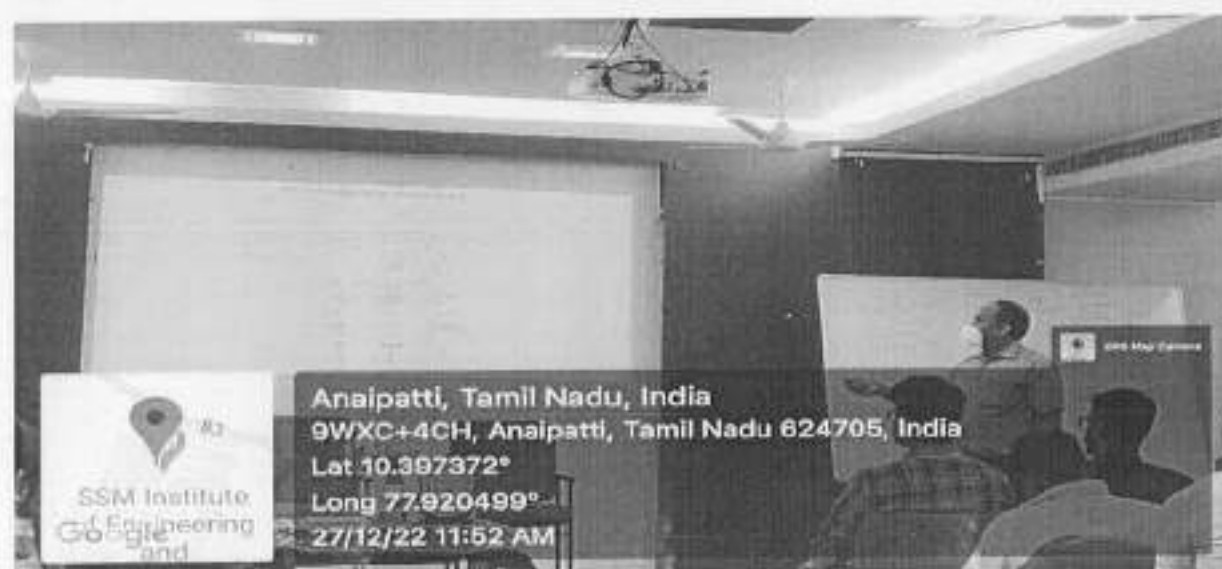




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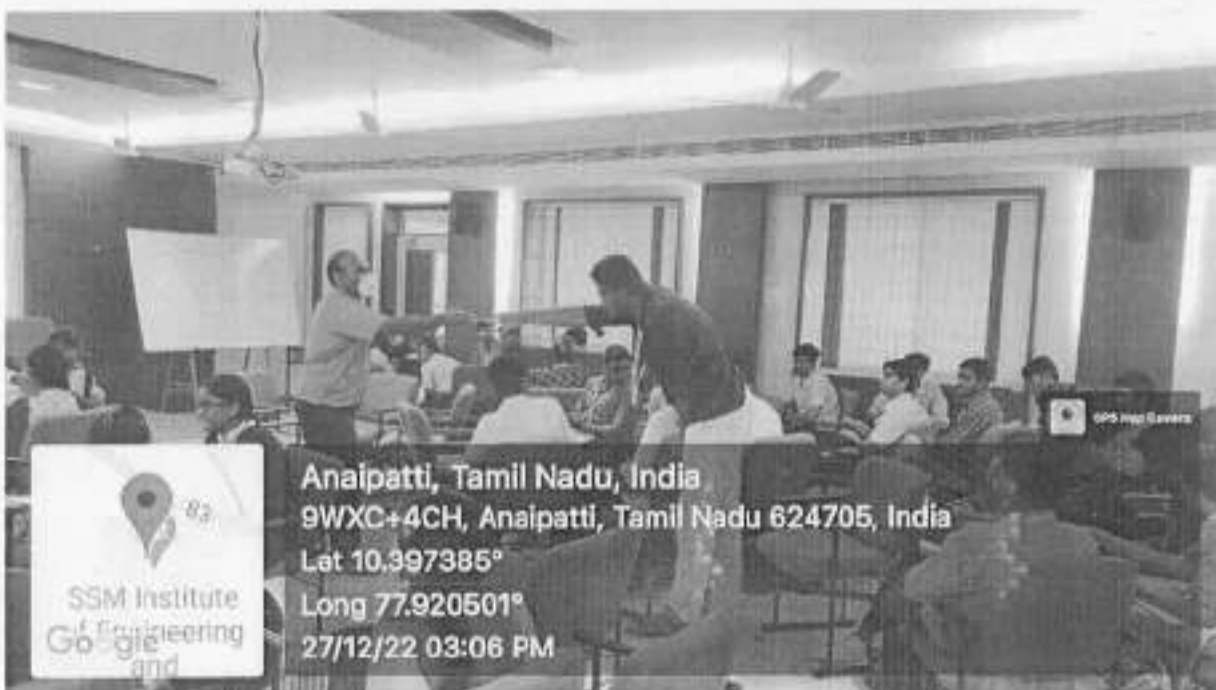
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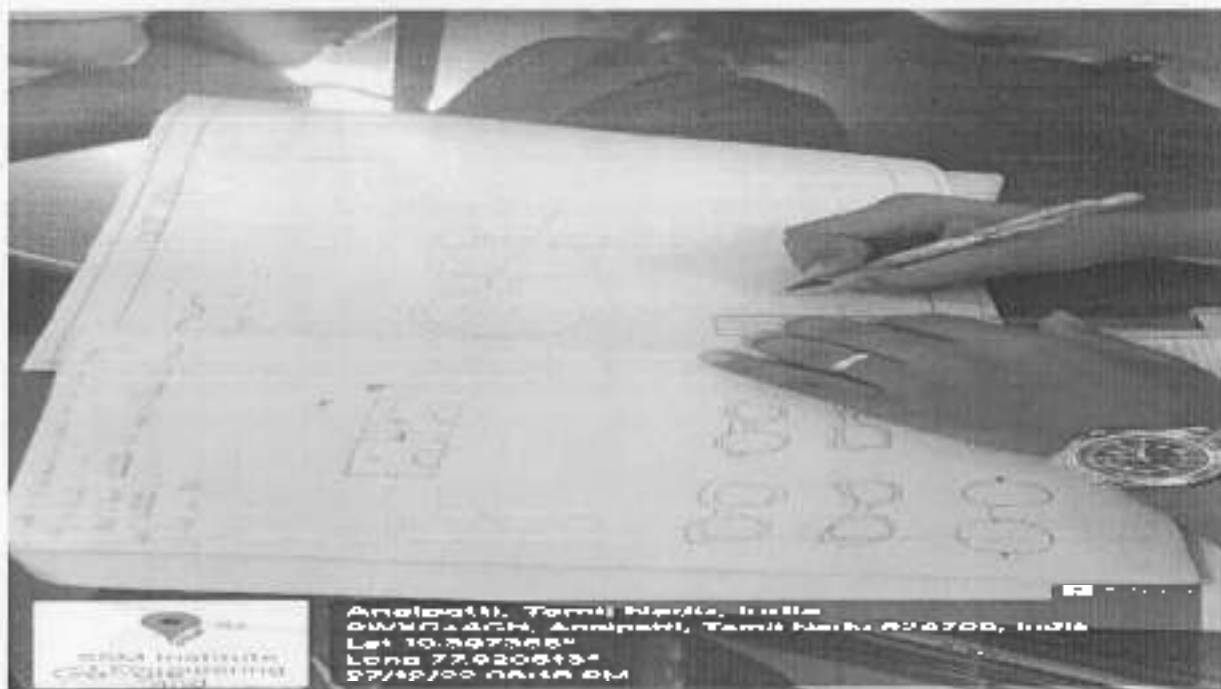
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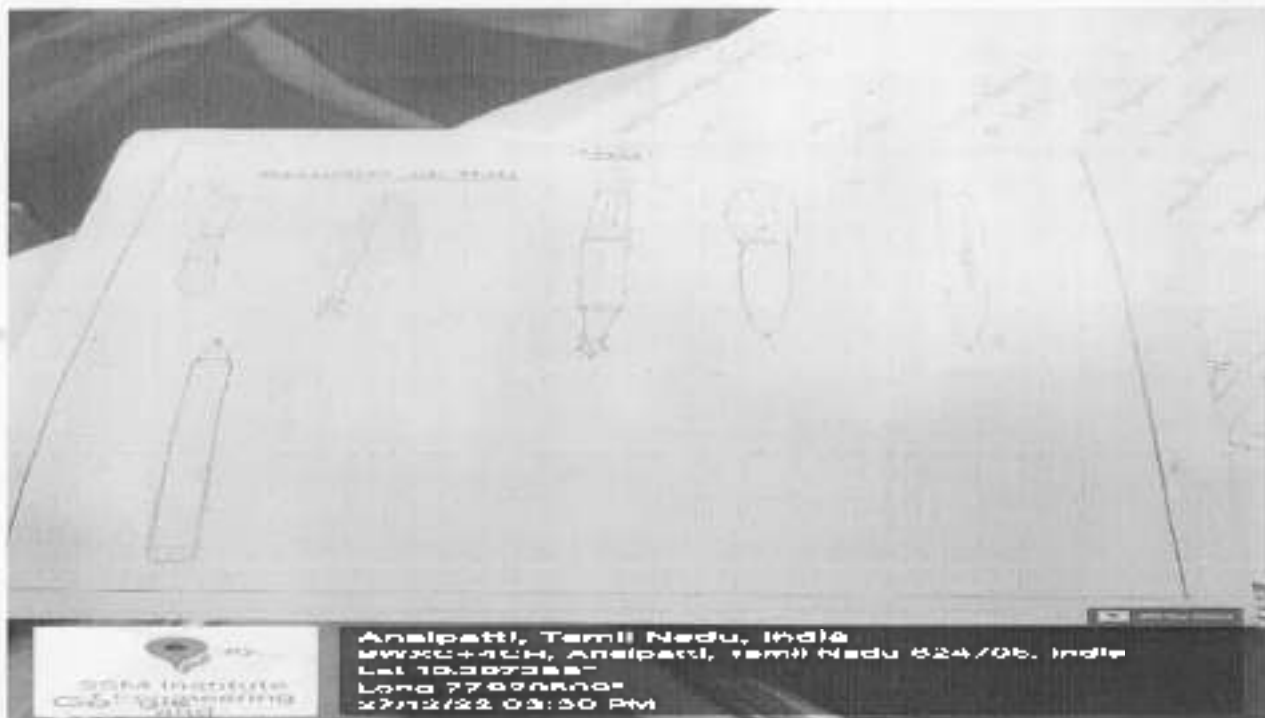


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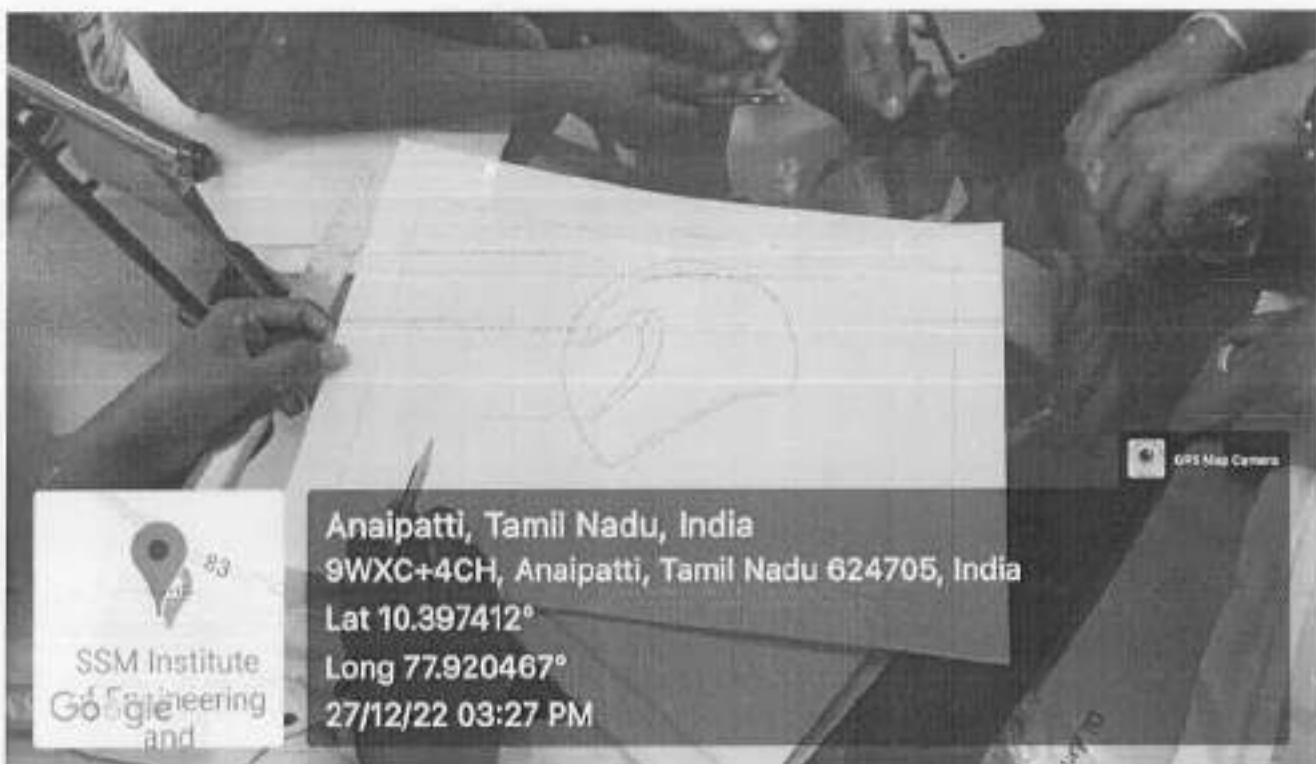


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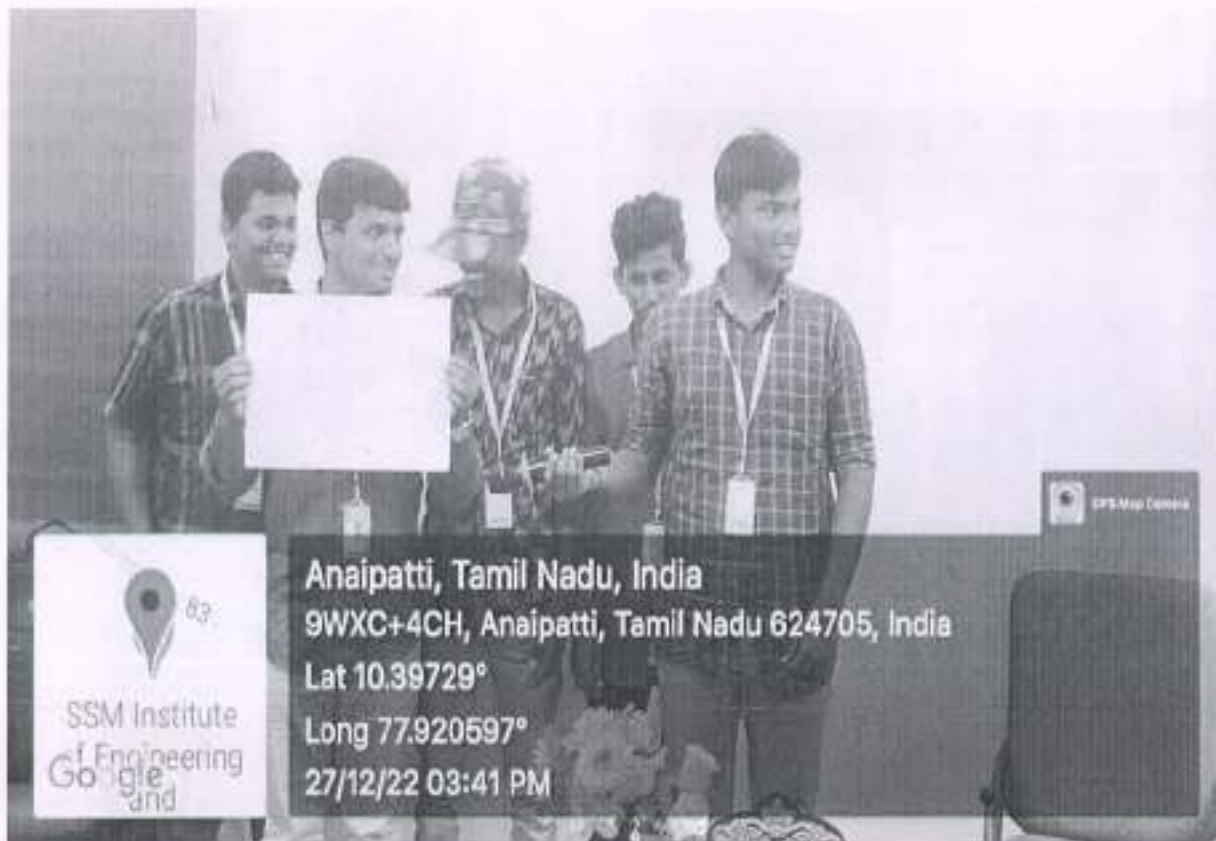




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Long 77.920467°
27/12/22 03:30 PM



Anaipatti, Tamil Nadu, India
9WXC+4CH, Anaipatti, Tamil Nadu 624705, India
Lat 10.397412°
Long 77.920467°
27/12/22 03:27 PM




 President/NC


 Event Coordinator/IIC


 Principal



SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY



[Approved by AICTE, New Delhi • Affiliated to Anna University, Chennai • Accredited by NAAC]

Dindigul - Palani Highway, Dindigul - 624002.

Workshop on Design Thinking to Product Development

CERTIFICATE OF PARTICIPATION

This is to Certify that Dr. M. RAMESHVAR, PROFESSOR from the

Department of MATHS SSM Institute of Engineering and Technology,

had actively participated in the WORKSHOP on "DESIGN THINKING TO PRODUCT DEVELOPMENT"

organized by Institution's Innovation Council on 27th December 2022.

Event Coordinators

Mrs. N. J. Divya (AP/CSE)
Mr. M. Selwin (AP/Mech)

IIC President

Dr. K. Vinoth Kumar

Principal

Dr. D. Senthil Kumar