

Dr.Mahalingam College of Engineering and Technology, Pollachi

Office of Dean Research and Innovation

Report on

Student Research Council

Organizing

Knowledge Sharing Session on “Technology Commercialization and Scrutiny of Patentable Inventions of Students”

About the Session

The student research council (SRC) organized a one-day Knowledge Sharing Session on Technology Commercialization and Scrutiny of Patentable Inventions of Students for the benefit of the Faculty and student members of MCET. The Program details are given below for your kind reference.

PROGRAM DETAILS

S. No.	Time	Session Details	No of Participant
20-05-2024 (Monday) @ Electrical Seminar Hall-C107			
Session 1			
1	9.30 am – 11.00 am	KSS on Technology Commercialization Dr.S.P.Subramaniyan, Deputy Controller of Patents & Designs, Patent Office, Chennai Mr. V. Palaniswamy, Deputy Controller of Patents & Designs, Patent Office, Chennai Mr.D.Saravanan, Chairman-3M-IPR Associates, Chennai	52
2	11.00 am - 11.30 am	Refreshment	-
Session 2			
3	11.30 am to 1.00 pm	Scrutiny of Student proposal of patentable inventions	38
Session 3			
4	2.00 pm to 3.30 pm	Scrutiny of Student proposal of patentable inventions	50

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The SRC student coordinators started the function with a prayer song. Dr. S. Ramakrishnan, Dean of R&I, delivered the welcome address and welcomed the chief guest and participants of the Knowledge Sharing Session on “Technology Commercialization and Scrutiny of Patentable Inventions of Students”. This was followed by a presentation of patent statistics for the previous year compared with the academic year 2023-2024 and insists on this patent proposal writing with our full effort and interest towards Technology Commercialization aspects. It will be very helpful to reach out to the expectations of the NAAC, NBA and NIRF committees, with this faculties can also excel in the specific field of research. Dr. P. Govindasamy, Principal delivered the principal address. He wishes everyone to utilize this session to its fullest potential and encourages them to apply for the patent in the upcoming year. Ms.A.Praveena, Vice President, SRC delivered the chief guest's introduction.

The sessions covered a wide range of topics related to Technology Commercialization, including:

Session 1:

Mr.D.Saravanan was delivered the following topics related to patent:

Understanding Patents

1.Basics of Patents

- Definition and types of patents.
- Importance of patents in technology and innovation.
- Problem Definition

2.Patent Filing Process

- Steps involved in filing a patent.
- National vs. international patenting processes.
- Common pitfalls and how to avoid them

Mr. V. Palaniswamy, was delivered the following topics related to Technology Commercialization:

1. Concept of Technology Commercialization

- Definition and stages of commercialization.
- Difference between invention and commercialization.

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2. Strategies for Commercializing Patents

- Licensing agreements.
- Joint ventures and partnerships.
- Startups and spin-offs.
- Direct commercialization by patent holders.

Dr.S.P.Subramaniyan, was delivered the following topics related to Technology

Commercialization:

Market Analysis and Intellectual Property

1. Market Research and Analysis

- Identifying market needs and potential customers.
- Competitive analysis.
- Assessing market readiness.

2. Role of Intellectual Property (IP) in Commercialization

- Protecting IP during commercialization.
- IP valuation and its impact on commercialization strategies.

Patent Proposal reviewing

Based on the three important measuring patent parameter (Novelty, Inventive Step & Industrial Applicability, 43 patent proposal reviewed by a chief guest provides an impartial evaluation, specialized technical insights, and constructive feedback and enhances the application's credibility.

List of Student Patent Proposal Details

S.NO	DEPARTMENT	TITLE OF PATENT	INVENTORS
1	EEE	Automated Medication Dispensing System with Real-Time Synchronization and Reminder Functionality	Dr.M.Kaliamoorthy Visweshwara RM /IV Gokul G/IV Manoj Kumar CR /IV
2		Development of Virtual Reality for Dhatuposhana Nyaya	Dr.Arthur Vasanth J P.Balaharish / II A.Rajkumar/ II R.Kamalathithan/ II T.Sobika/ II E.Preethi/ II V.K.Pratheekshaa/ II
3		Robotic Vacuum Cleaner	Dr.B.Vinothkumar Naren Karthik M K/ II Lopamudra S/ II Mano Sri E/ II
4		IoT-Enabled Smart Healthcare Bed: Revolutionizing Patient Monitoring and Comfort	Dr.J. Arthur Vasanth Mohan Raj M/IV Kathirvel K/IV Udhayanithi B/IV

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5	Auto	Development of Low-Cost Portable Fork-Lifter for Load Man	Dr.M.Selvakumar Elladurai S/IV Mehulkrishna M/IV Saran N/IV
6		Design an Automatic Ceiling Painting Machine	Dr.k.Sakthi Vadivel Subhashini.R / II Sriharini.P / II Dhanush.R / II
7	Mech	Chemical mixing machine for agriculture farm	Mr.Gurupranes SV Bharathsanjai /III Raja Suriya B/III JaiSurya S/III
8		Multiple Crash Event for Force Detection	Dr. K. Hariharan Kirish. S. K/IV Yaswanth Kumar. S/IV
9		Smart iron box for prevention the damage from Heat	Dr.M.Jayaraj Lohit M/II
10		E-Bicycle equipped with regenerative technology	Mr.K.Sasikumar Selva Natheya/III Nitish V B/III .Ranjithkumar S/III
11		Dual-Function Coffee and Bread Toaster Machine”	Mr. Nachimuthu S Sivasankar R/II Lohit M/II Karthik T/II
12		Blender Machine	Dr.N.Shanmuga Sundaram Shanjay.R/IV Vetriselvam.P/IV Madhanathithya.P.A/IV
13		Design of active prosthetic Ankle and adaptive bike riding equipment for lower limb amputees	Dr.D.Nathan U S Abhinith/III S Mohammed Aathil/III K jayanth Nivasan/III
14		Photon Power Station	Dr.N.Shanmuga Sundaram. Abdul Wahid A /II Santhosh S/II Mohamed Fazil K/II
15		Identification of Potholes and Humps on Road	Mr. Vijayakkannan K .Ratheesh M /II Pravinkumar A /II Aswin S /II
16		Autonomous Speed Control of Vehicle In Urban And Rural Roads	Mr P P Mahalingam Rohith Kumar S / III Anson Vijay R / III Manoranjana M / III
17	IT	Phishing detection in E- mail using Machine Learning	Ms.K.Saranya Yashwanth A.K /IV Gurunathan Ra /IV Tamilarasu G. /IV
18		Detection of Scam Job Post Using Machine Learning	Ms.P.Rajeswari Mayurika R G /IV Yazhini M /IV Fathima S /IV

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19		Sign Language Translator	Dr Thimmiaraja J Saran Adithya S /IV Sharanesh Krishnan R /IV Jai Vishal /IV Karthikeyan P S /IV
20		Cipherguard: Fortified Data Shield Using Fernet Algorithm	Ms.Saranya G S Shubiksha S I Sreenithi R S Subhiksha
21		Gamification- A comfort place to improve your self	Ms.R.Govinda Raj Pon Amarnath .K / II Haridharushan.S.V/ II
22	CSE	Smart Street Light using Piezoelectric Transducers	A.Jayalakshmi Bhoomish V.A /II Madhumitha E/II Chandru /II
23		Secured Transactions using Blockchain technology	Mr.D.Manojkumar Rithika G /IV Aswath C /IV Karthik G /IV
24		Enhancing Environmental Education through Immersive Mixed	Mr.R.Karthick Vaishnav.S / IV Hemachandran.P/ IV Jeevasudharsan.R/ IV Vaishnav.S/ IV
25		IoT Based Mobile App for PLC to operate and control the machine	Dr.N.Senthil Mr.Madaswamy Mr.Mr.Anthony Jesudurai.S Thithiksha Sri S /III Swetha A /III Karthick P.S /III
26		Voice Controlled Assistance system for PC	Ms.C.Jayashree Ragul J /III Shree Vardhan/III Anusuya.E /III
27		Smart Door operating Device	Ms.C.Devipriya Dineshwaran.P / II Medhun. A.K/ II Kavinraj.T / II
28		Nutritional Growth of seeds with automated sprouting system	Ms. S. Thilagavathi, AP(SS) S. Abinav/ III V. Vaideeshwaran/ III V. Dharun/ III
29		Digitalized Password based module for electrical substation	Ms. S. Thilagavathi, AP(SS) Nishanth. J / II Praveen M J/ II Dharani Raj Kumar M/ II Ramya M/ II Sanofar Parveen A/ II
30	An auto indicator to prevent the Accident.	Ms.K.C.Rajarajeshwari P.Pranesh/ II P.S.Muhilarasan/ II S.AnishKumar/ II	
31		Tablet box	Mr.K R Gokul Anand Aadhil Ahmed. A / II Selvamanikandan. P / II

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			Harini.S / II
32		Children Protection Tracker	Mr.K R Gokul Anand S.Karthika/ II M.Abinaya/ II
33		DTMF Controlled Robot Car	Ms.C.Gokila Sibilesh. S / III Surya. R / III Prakash. V / III
34		Fruit ripening using LED Lighting system	Mr.K R Gokul Anand S.SanjithSujan / III P.Sujan / III N.Kishore / III
35		detect the pipeline breakage to prevent water wastage	Ms.K.C.Rajarajeshwari KaviyaDharsini.S/ III Tamilarasu.T/ III Sudharsan.K/ III
36	ECE	protect the women and girl child from harassment by emission of gases.	Ms.K.C.Rajarajeshwari KaviyaDharsini.S/ III Tamilarasu.T/ III Sudharsan.K/ III
37		Fire Combatant Robot	Mrs. R. Sherine Jenny Rohith S/ III Subashini V/ III Teena Infancia J/ III
38		Effective Green Fodder Cultivate system	Mr.K R Gokul Anand M.D.Haari Prasaath/ IV P.Gowtham / IV S.Pathmaraga/ IV
39		Adaptive Cruise Controlled Car	Ms.Nithiyameenatchi N Parthasarathi C / IV Varun G/ IV Premchandran B/ IV
40		Smart Incubation and Monitoring System for Olive Ridley Turtle	Mrs. R. Sherine Jenny Hariharasuthan K/ IV Sridharun A/ IV Thiyagumani R/ IV
41		Real -Time Health Monitoring system for Driver Drowsiness detection by using ECG	Ms.P.Vanjpriya N.S. Madhumohan/ IV K.A.Sreeram/ IV C.N.Balamurali/ IV
42		vehicle safety, performance, and intelligence through the deployment of advanced embedded systems	Mr. M. Vignesh Harisutha AS/ IV Naveen Chandra V/ IV Karthick M/ IV
43		Fingerprint based Student Identification System for Secure Attendance management using IOT	Dr.S.Bharathi Nandhini K/ IV Divya B / IV Maunithaa R G/ IV

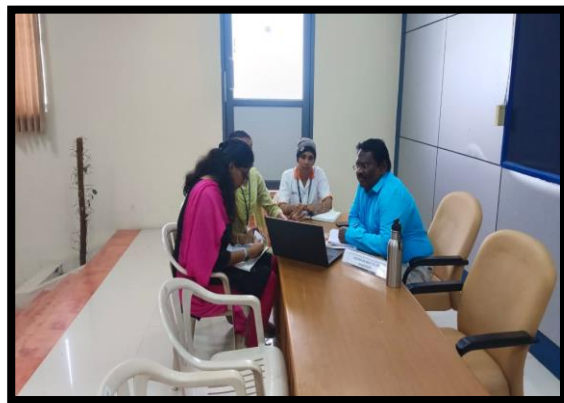
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Feedback and Assessment

Feedback was collected from all participants and they shared positive views about the session. Based on the topic discussed multiple choice questions assessment was given to participants to assess the effectiveness of the session.

Photos Taken During Workshop



Interaction:

Questions:

Is it possible to obtain a patent by changing the battery cell component?

Response:

Yes, it is possible to obtain a patent by changing the battery cell component if the change introduces a novel, non-obvious, and useful improvement over existing technology. The new component must meet the criteria set by patent laws to be considered patentable.

Questions:

Can a patent be applied for the new software?

Response:

No, we can only apply for copyright. However, if this software is used within a larger system and meets the criteria of being novel, non-obvious, and useful, it may be considered for patent protection. The software must demonstrate an innovative solution or improvement to qualify for a patent.

Questions:

Is it possible to grant a patent after the research article has been published?

Response:

It might not be possible to grant a patent after a research article has been published because publication can affect the novelty requirement for a patent. Most patent systems require that the invention be new and not publicly disclosed before the patent application is filed. Once an article is published, the invention is considered part of the public domain, which can invalidate the novelty of the patent application.

Questions:

Is there any technology commercialization agent available for the patent?

Response:

Yes, there are technology commercialization agents available who specialize in helping inventors and businesses bring their patented technologies to market. They can assist with various aspects such as licensing, marketing, and finding potential partners or investors.

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Outcomes

- Participants with the knowledge, skills, and resources needed to navigate the complex process of technology commercialization of patents. It fostered a deeper understanding of both the technical and business aspects, enabling innovators to effectively bring their inventions to market.
- Participants learned about the comprehensive understanding of patent identification techniques, efficient work processes in patent prosecution and also the ability to conduct thorough prior art searches, draft clear patent claims, and streamline patent-related documentation.
- On the other hand, the outcome of reviewing a patent proposal is to evaluate its quality, identify potential weaknesses, and refine the application before formal submission, ensuring that the proposal meets the required standards and increases the chances of a successful patent grant.



Dean R&I



Principal

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Secretary