## IPR CELL, INSTITUTION INNOVATION COUNCIL (IIC) - AVIT

Event Report – "Kapila Program for IP literacy and Awarness (Ph-10), Kapila 7

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| Name of the Event | Kapila Program for IP literacy and Awarness (Ph-10), Kapila 7 |
| Date & Time | 11.03.2025 & 10.00 AM (IST) |
| Guest Speaker | (i) Mr.Gyan Prakash- Institute alumni /Industry expert<br>(ii) Miss Padam Malini - Incubation CEO<br>(iii) Mr.SivaPrakash P - Legal Advisor /IPR expert |
| Total Participants | 08 |
| Organised By | IPR Cell, Institution Innovation Council (IIC) AVIT |
| Mode | Online |
| Venue | GIEC |
| Media link | https://teams.live.com/meet/9572100129166?p=3zx6D4ujiLqfI2HmDy |

**Event Broucher**


https://www.facebook.com/photo?fbid=1011551027764927&set=a.561293142790722

IPR Cell, Institution Innovation Council (IIC) AVIT organized Kapila Program for IP literacy and Awarness (Ph-10) on 11.03.2025. the following members were present and verified the topics for finalizing the Kapila patent filling .

(i) Dr.G.Selva Kumar Chairperson-Principal

(ii) Mr.Gyan Prakash- Institute alumni /Industry expert

(iii) Miss Padma malini- Incubation Head/CEO

(iv) Mr.SivaPrakash P - Legal Advisor /IPR expert

(v) Dr.K.Boopathy, SPOC

Patent list

| S.No | Name of the inventors | Title | Field of invention /Objectives | Claims | Remarks / Applied |
|---|---|---|---|---|---|
| 1. | Dr. S. Prakash<br>Dr.M. Prabhahar<br>Dr. M. Saravana Kumar<br>Mr. A.Lokeshwaran<br>Mr. B. Manuneethichola | Musculowagon Mechbox | The present invention relates to the field of fitness equipment storage and organization solutions, specifically a modular and portable gym equipment organizer. Designed for gym enthusiasts and fitness professionals, this invention provides an innovative, space-saving system that securely stores | A gym equipment organizer system, MUSCULOWAGON MECHBOX, comprising:<br>• A main storage compartment (1) defined by a rectangular framework constructed from a durable, lightweight material, facilitating portability and reinforced edges for enhanced strength; | Product IP |

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| | | | various gym tools while also functioning as a foldable gym bench<br>The principal object of this invention is to provide a modular gym equipment organizer that efficiently organizes and protects workout tools, enhancing accessibility and convenience for users. | | |
| 2. | Dr.Bubesh Kumar.D<br>Mr.K.Vijaykumar<br>Dr.M.Prabhahar<br>Dr L.Prabu | Advanced Deep Learning Based Exoskeleton for Paralytic Patients | It is one of the present inventions which include a lightweight carbon composite exoskeleton body, offering increased strength-to-weight ratio which also includes ultrasonic obstacle avoidance system, CCD camera sensors | The invention provides a wearable exoskeleton with hands and legs with foot.<br><br>Which represents the design of an exoskeleton robotic technology to assist the paralyzed people to move on their own, by supporting them physically and move their leg and hand independently like a human | Product |

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| | | | ensuring the patients safety by detecting obstacles along their path. | | |
| 3. | Dr.R.Abirami<br>Dr.S.P.Sangeetha<br>Dr.Bubesh Kumar.D<br>Dr.M.Prabhahar<br>Dr. R.Divahar | Environment-Friendly Prefabricated Housing For Villages | The present invention aims to build houses using natural environment friendly materials available in the villages.<br>Another aspect of the present invention includes a mould for fabricating prefabricated walls with a tensioning provision for the sisal fiber composite mixture, enhancing the strength-to-weight ratio of the prefabricated wall.**<br>The main object of the present invention is to offer a house | The natural materials for constructing environment friendly house for villages. Comprises of<br>Wooden mould for prefabricated wall<br>Prefabricated Roof slab is made up of wood<br>Natural Composite Material (clay, limestone, rice husk and sisal fiber)<br>Interlocking wall | Product |

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| | | | made from natural materials available from farmers own land in the villages | | |
| 4. | Dr.L.Chitra<br>Mr Veeramunishwaran | Design And Development Of Safe And Secure System In Bike | The invention relates to the field of bikes including electric bikes, specifically focusing on enhancing their safety and security through technologies using IOT.<br>**<br>To develop a robust anti-theft mechanism that includes secure Wi-Fi connectivity and an OTP-based unlocking system for ensuring only authorized users can access the e-bike | The safe and secure bike system comprises the bike unit (100), ESP 32 microcontroller (108) connected with GPS module (101), temperature sensor (102), smoke sensor (103), battery (104), colour display (105), alarm system (106), Wi-Fi module (107), ESP 32 microcontroller (108), central IoT server (202) and mobile app (300) | Product |
| 5. | Malathi V<br>Jaichandran R | Block Chain based Hybrid Electronic Voting System using DMECC-RLMDS- | The present invention generally relates to block chain based hybrid electronic | (i) Registration: All voters are required to register their voter details before the election.<br>(ii) Authentication: Digital signatures will be | Process (N- avoid vote rigging)<br><br>Is- Adding |

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| | | HSEASE-ERCA | voting system that combines both manual voting and online electronic voting. Specifically, the invention relates to a system and method for secure vote casting, vote transactions and verifying vote counts in block chain network. object of the present invention is to present a hybrid system and method for block chain based electronic voting system with Doubling mechanism based Elliptic Curve Cryptography-Reformed Lamport Merkle Digital Signature-Hidden Structure Enhanced | created for all registered voters. (iii) Vote casting: All registered voters shall cast their votes and casted votes will be transferred and stored in block chain network securely using encryption method. (iv) Vote counting: All casted votes stored in block chain networks are counted after decryption process. | block chain at vote storing<br><br>Application: for any electronic voting system |

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| | | | Attribute searchable encryption- | | |
| 6. | Vijay J<br>Hema L K | Efficient Power Management System By Implementing Solid – State Transformer (Sst) | Solid State Transformer, Renewable Energy, Power Electronics ( Not as per format -Ip) | The typical power flow model employs a DAB converter with phase shift modulation. This model includes resonance converter transmission, dead time, and a few losses. | Product |
| 7. | Mr. Atiqur Rahman<br>Dr.Balakrishnan S<br>K.Boopathy | Secure Resource Access Through Face Recognition System With Alarm | The present invention relates to biometric-based secure access control.<br>Specifically, the present invention relates to secure resource access through face recognition system that utilizes face recognition technology for authentication.<br>The said system is applicable to smart homes, offices, banking, healthcare, and high-security environments where enhanced security and convenience are | A face recognition-based access control system, comprising:<br>A camera module for capturing real-time facial images of users.<br>A preprocessing unit for converting images to grayscale and enhancing features.<br>• facial recognition module utilizing the Local Binary Pattern Histogram (LBPH) algorithm for feature extraction and authentication.<br>• enabling real-time monitoring and notification.<br>• To interface an electrical sensor with computer system to alarm to the respective person through Arduino controller | Process / Product |

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| | | | required.<br><br>To develop a secure and reliable face recognition-based access control system for authentication. | | |
| 8. | Dr LK Hema and Vinjamuru Lakshmi,Hira Parveen, III BME | An Integrated Intelligent Assistive Device | Hardware configuration and results/outcome should add with elaboration. Product IP process flow and system architecture explanation should be clearly represented. | Hardware instrument survey report should be added . | Product |

# TITLE OF INVENTION: ENVIRONMENT FRIENDLY PREFABRICATED HOUSING FOR VILLAGES


Name of the Inventors

1. Dr.R.Abirami
2. Dr.S.P.Sangeetha
3. Dr.D.Bubesh Kumar
4. Dr.M.Prabhahar
5. Dr.R.Divahar


# Inventors' details


## Dr.Bubesh Kumar.D
Professor, Department of Mechanical Engineering, AVIT

## Mr.K.Vijaykumar
Assistant Professor, Department of Mechanical Engineering, AVIT

## Dr.M.Prabhahar
Professor and HOD, Department of Mechanical Engineering, AVIT

## Dr.L.Prabhu
Professor & Vice-Principal (Administration), AVIT


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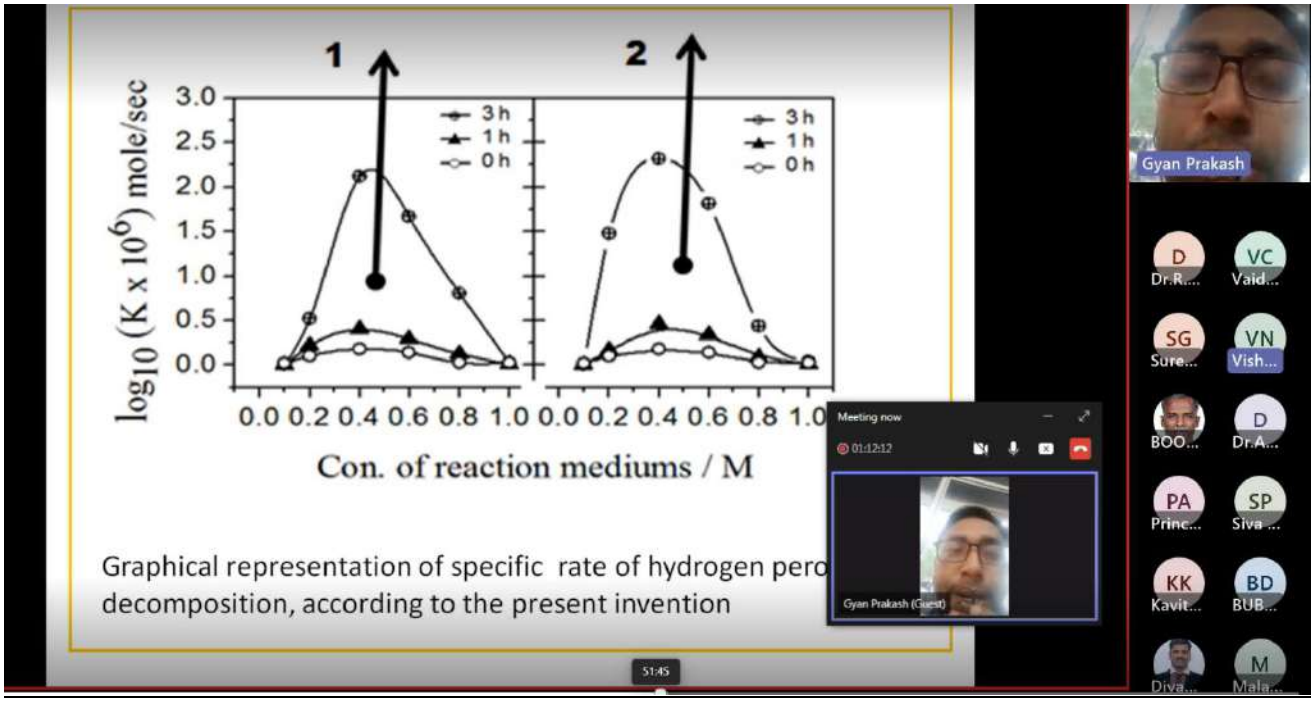

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Accredited by NAAC Approved by AICTE

## ASSISTOCARE- An Integrated Intelligent Assistive Device


**Inventors**

**1.Dr. L.K. Hema, 2. Vinjamuru Lakshmi,III BME 3. Hira Parveen, III BME**

**PROFESSOR & HoD,**

**DEPARTMENT OF ECE & BME,**


VINAYAKA MISSION'S RESEARCH FOUNDATION
Deemed to be University under section 3 of the UGC Act 1956

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## Title of Invention

# Block chain based e-voting system for secure transaction and verifying vote counts using DMECC-RLMDS-HSEASE-ERCA method


**Inventors Name**

**Mrs. Malathi V & Dr.R. Jaichandran**

**Department of CSE,**
**Aarupadai Veedu Institute of Technology,**
**Vinayaka Mission's Research Foundation – DU.**

OUTCOME

After the successful completion of the meeting, 7 patents are selected for filing in the kapila portal

We would like to sincerely thank the Management, Principal, VPs and HOD's for having given us an opportunity to organize a Kapila meeting . My heartfelt thanks to President, Vice President, and IPR Students /Faculty members, for providing constant support.

Special thanks to our respected Principal, Dr.G.Selvakumar, for his valuable guidance and support.

K.Boopathy & IPR Members