



BMS INSTITUTE OF TECHNOLOGY AND MANAGEMENT

Avalahalli, Doddaballapur Main Road

Bengaluru – 560064

PROJECT BASED LEARNING
COMPENDIUM

2021-22 EVEN SEMESTER

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PBL COMMITTEE MEMBERS

Sl.NO	Name	Department
1	Dr. Mohanbabu G N	Principal
2	Dr. H K Govindaraju	Vice-Principal
3	Dr. Anil G N	Dean-Academics
4	Dr. Ambika R	PBL-Coordinator, Institute Level
5	Dr. AnanthaKrishna G L	PBL-Coordinator, Institute Level
6	Dr. Radhika K R	PBL-Coordinator, Institute Level
7	Dr. Prashanth A	PBL-Coordinator, EEE
8	Mr. Sundaresh	PBL-Coordinator, ME
9	Mrs. Shashikala	PBL-Coordinator, ECE
10	Dr. Anitha V	PBL-Coordinator, ECE
11	Mr. Raghunandan G H	PBL-Coordinator, ETE
12	Mrs. Vishakha Yadav	PBL-Coordinator, CSE
13	Mrs. Swetha M S	PBL-Coordinator, ISE
14	Dr. Geeta Patil	PBL-Coordinator, ISE
15	Mr. Deepak	PBL-Coordinator, CIV
16	Dr. Vibha	PBL-Coordinator, CIV
17	Dr. Anupama H S	PBL-Coordinator, AI&ML

Total Number of Projects

Department	No. of projects in IV semester	No. of projects in VI semester	Total Department wise	Total= 494
CSE	54	65	119	
ISE	55	60	115	
ECE	52	58	110	
ME	12	14	26	
CV	11	17	28	
EEE	14	19	33	
ETE	16	15	31	
AI & ML	21	17	38	

RUBRICS FOR PBL EVALUATION

I PHASE EVALUATION

Problem Formulation and Synopsis	10M	Total: 50Marks
Objectives and Methodology	10M	
Presentation Skills	20M	
Viva	10M	

II PHASE EVALUATION

Implementation	20 Marks	Total 50 Marks
Presentation	20 Marks	
Viva	10 Marks	

OPEN DAY EVALUATION

Presentation and demonstration of the project	20	Total 50 Marks
Societal concern	10	
Team work	10	
Viva	10	

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PBL Report

Project based Learning is incorporated for the subjects which lack the blended mode of implementation through the Curriculum prescribed by the University.

Subsequently, an analysis was carried out based on the curricular course components to mitigate the gaps. It was decided to execute the PBL for the following subjects:

IV Sem	Design and Analysis of Algorithms Object Oriented Concepts
VI Sem	Web technology Development System Software and Compilers

Students were asked to form a team of 2-4 members and pursue the real world problems as far as possible to gain insight of projects implementation.

There were 60 Teams from the IV semester and 62 Teams from the VI Semester who have participated in the review and evaluation process. All the faculty members have participated in mentoring the Teams and Internal evaluation process.

The Final Evaluation was carried out by the External Judges working in Industry.

Prize Distribution ceremony was attended by our Alumni Mr. Saikrishna and Mr. Bibhu.

List of PBL Winners				
Semester	Prize	USN	Name of the Student	Title of the Project
IV A	I	1BY20CS220	Abha Nair	E Mechanic
		1BY20CS221	Ahaana Singh	
		1BY20CS058	Hammam Ali Abdullah Ba Hamid	
		1BY20CS002	Abdulhadi Shukri Saeed Abdn	
	II	1BY20CS007	Abhishek k sridhar	Online auction system
		1BY20CS053	G.P.Harshik	
		1BY20CS059	Harshita P	
		1BY20CS066	I Ashneel	
	II	1BY20CS020	Amith R	Data security by steganography
		1BY20CS063	Hetal Rakesh Lad	
		1BY20CS068	J M Suhas	
		1BY20CS071	Jalla Sai Swetha	
IV B	I	1BY20CS101	M Shashank	Virtual Learning platform
		1BY20CS122	Nandan N Kopplu	
		1BY20CS126	Nishanth Y	
		1BY20CS129	Nithin R Swamy	
	II	1BY20CS090	Kruthika C K	DigiVote
		1BY20CS093	Lakshmi Narayana K R	
		1BY20CS095	Lavenia Vijay Kumar	
		1BY20CS128	Nitheesh M S	
IV C	I	1BY20CS148	Rayees Hussain S A	SISAC 1.0 – Student Information System and Cafeteria
		1BY20CS153	S C Arham	
		1BY20CS156	S Sagar	

		1BY20CS192	Keshav Bhumaraju	
	I	1BY20CS201	Syed Nazish	Emergency vehicle dispatch system
		1BY20CS213	Vaidehi Patel	
		1BY20CS157	S Sameeksha	
		1BY20CS223	Tarun Agarwal	
	II	1BY20CS149	Rishitha Panyam	Pathfinding Visualizer
		1BY20CS184	Siddharth B	
		1BY20CS185	Smriti Kulkarni	
		1BY20CS190	SRK Snehith Varma	
VI A	I	1BY19CS043	E Shravanthi	Entip
		1BY19CS047	Gehna Jain	
	II	1BY19CS051	Harshitha GS	AI Virtual Assistant
		1BY19CS031	Challa Jwanitha	
		1BY19CS006	Akanksha	
		1BY19CS052	Hitha	
	II	1BY19CS004	Aditi Lal	Codify
		1BY19CS011	Ameesha Kaur Oberoi	
		1BY19CS014	Ananyasree S	
	VI B	I	1by19cs110	Pratham M Donthi
1by19cs092			Navayug Sriram	
1by19cs141			Shantanu S D	
1by19cs080			Manoj M S	
II		1BY19CS103	Poorvik D	Blood Registry Using Block Chain
		1BY19CS105	Prajwal D	
		1BY19CS094	Neha Banu	
		1BY19CS083	Md Owais	
VI C	I	1BY19CS150	Siddharth Vaddem	

1BY19CS154	Sohankumar TR	Realtime Collab tool - "HUDDL"
1BY19CS165	Syed Tabraiz	
1BY19CS182	Vishal Hanuman	

JUDGES FOR THE EVALUATION

- 1. Mr. Pruthvi Kumar K R – Associate SME (Microland)**
- 2. Mr. Nataraja H K – Senior Manager (Harman Inetrnational Pvt. Ltd.)**

Photos/ Screenshots





Program Outcomes Mapped and justification

PBL projects are mapped to the following PO's

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
	✓	✓	✓	✓	✓			✓	✓	✓	✓

DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING

Department of Information Science and Engineering, BMS INSTITUTE OF TECHNOLOGY AND MANAGEMENT, Avalahalli, Yelahanka, Bengaluru organized a PBL Project Review on 8th and 9th July 2022 to exhibit the project work carried out by the students of the IV and VI semester. The projects exhibited the student's ability to apply their learning to solve real-world problems.

This semester around 115 PBL batches choose the simulation and Software based projects along with some hardware prototype based projects. Students have taken up few challenges and realized the same with the help of peer groups and faculty mentors. Intensive review of projects is carried out by the faculty members. These projects were evaluated by internal committee on various rubrics. Selected best 3 projects from each section have presented their work to jury from industry.

JUDGES FOR THE EVALUATION

1. Mr. Sunil Gupta, CEO – Skill Curious, Bengaluru
Email : sunilgupta@skillcurious.com
2. Mr. Aditya Raj, Lead Infrastructure Engineer, Mphasis Limited, Bengaluru.
Email : aditya.raj@mphasis.com

PRIZE WINNERS LIST

Dept.	Sl. No	USN	Students Names	Name of Project
ISE(4A)	1	1BY20IS024	Anandhu	Advanced SOS Emergency Mobile Application
		1BY20IS016	Ajay Kamath	
		1BY20IS002	Abdul Sadiq	
		1BY20IS009	Abhishek Shankar	
	2	1BY20IS014	Aditya Pal	E-Voting Using Block chain
		1BY20IS013	Aditya Gour	
		1BY20IS040	Bhavyatha M	
		1BY20IS026	Ananya Anand	
ISE(4B)	1	1BY20IS109	P. Manjusha	SMART STREETS - IOT based quick emergency alerting system
		1BY20IS103	Ojaswini J	
		1BY20IS121	Priyamvada P.	
	2	1BY20IS073	Lokesh E	Bringing the power of AI/ML for the aid of teachers in classroom
		1BY20IS065	Jitendriyadeep	
		1BY20IS098	Niha Shanavas	

		1BY20IS089	Monisha G	
ISE(4C)	1	1BY20IS152	Shashwat Kumar	Photo beam
		1BY20IS192	Y Abinivesh Reddy	
		1BY20IS181	Teja Kiran S Rayudu	
		1BY20IS149	Satyam Kumar Mishra	
	2	1BY20IS155	Shreevas Nandan	Create and monitor geofence
		1BY20IS172	Sujan Chowdary	
		1BY20IS187	Vaibhav Jain	
		1BY19IS154	Shivam Dubey	
1BY20IS188		Vaishali Bihani		

ISE(6A)	1	1BY19IS01 6	Akash Niraj	Covid a Fluch
		1BY19IS04 8	Deepak Singh	
		1BY19IS00 2	Amit Sharma	
		1BY19IS05 3	Diksha Pujan Singh	
	2	1BY19IS00 4	Abhay M Pamadi	Skylark - A next gen social media
		1BY19IS02 6	Ananya Ravishankar	
		1BY19IS02 9	Anu Nithya P	
		1BY19IS06 4	Gudla Jahnavi	
ISE(6B)	1	1BY19IS11 5	P Preethika	VisualEyes- A Smart App for the Visually Impaire
		1BY19IS08 6	Lekha R	
		1BY19IS07 6	K.Varsha	
		1BY19IS19 9	Harshita	
	2	1BY19IS11 2	Niharika	Malware Analysis with Sandbox
		1BY19IS08 0	Kenneth Dias	
		1BY19IS12 2	Prinshu Shukla	
		1BY19IS07 1	Jaswanth K E	
ISE(6C)	1	1BY19IS16 3	Sudhanva Rao	Social Networking using Blockchain
		1BY19IS13 9	Roshan Poonacha A B	
		1BY19IS16 4	Suhas M	

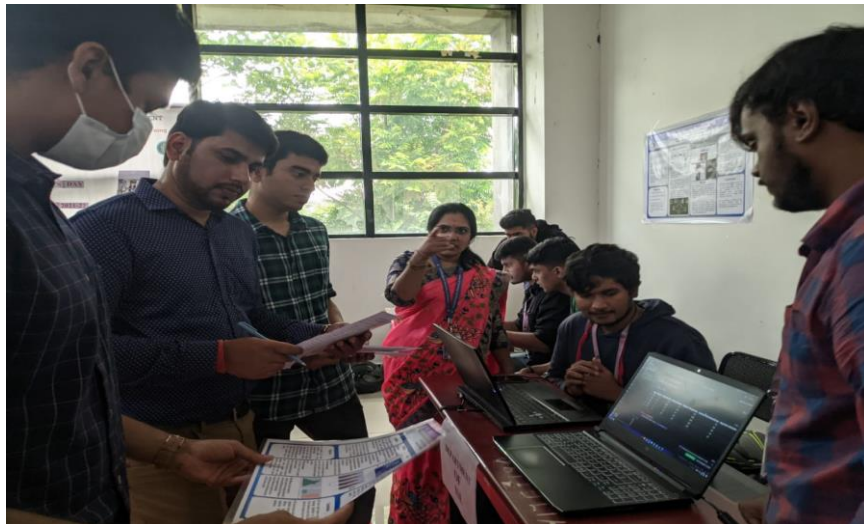
	1BY19IS18 1	Vimarsh Ayyappa M S	
2	1BY19IS16 8	Tarun S	Crop Prediction
	1BY18IS12 9	Anamika Sharma	
	1BY19IS18 0	Vikas Verma	
	1BY19IS18 3	Vivek Pathak	

Photos/ Screenshots:

4th Sem PBL - Open day



6th sem PBL - Open day





- **Program Outcomes Mapped and justification**

PBL projects are mapped to the following PO's

PO5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6: The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7: Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

P011: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

P012: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PBL Coordinators

(Prof. [Swetha M S](#)/ Dr. Geeta Patil)

HoD-ISE

Dr. [Pushpa S.K](#)

DEPARTMENT OF CIVIL ENGINEERING

Report:

Department of CIVIL ENGINEERING, BMS INSTITUTE OF TECHNOLOGY & MANAGEMENT, Avalahalli, Yelahanka, Bengaluru organized Open Day on 9th July 2022 to exhibit the PBL project work carried out by the students of the III and V semester students. The projects exhibited the student's ability to apply their learning to solve the real-world problems. This semester around 20 PBL batches chose the Civil Engineering Problems Based Projects and Innovative Solutions for the same through technical and smart methods. These projects were mentored by the assigned faculty members and were evaluated by internal committee on various rubrics. The shortlisted projects were demonstrated on Open Day and were evaluated by the external Jury.

PRIZE WINNERS LIST

The following are the winners of PBL projects based on External Evaluation conducted on OPEN DAY on 09.07.2022:

Open Day (09.07.2022)		Winners		
PBL- 6 th Semester- 2018-Batch- CV				
Winners	MENTORS	STUDENTS NAME	USN No.	TOPIC
1 st Place	Dr. LALIT KUMAR GUPTA	Rajeshwari S	1BY20CV415	MOVABLE ROAD DIVIDER
		Shravana J	1BY20CV417	
		Mithun K R	1BY20CV406	
		Dhanush K	1BY20CV404	
2 nd Place	Mrs ARCHANA K	Bharath Singh BD	1BY19CV003	SUSTAINABLE PICO HYDROPOWER FOR RURAL AREA
		Deepthi BR	1BY19CV007	
		Harsh Vardhan Kumar	1BY19CV014	
		Shaik Arshiya Sadaf	1BY19CV033	

Open Day (09.07.2022)		Winners		
PBL- 4 rd Semester -2019-Batch- CV				
Winners	Mentors	STUDENT'S NAME	USN No.	TOPIC
1 st Place	Dr Marsh M Bandi	Sahas Sinha Reddy	1BY20CV006	SMART SPEED BREAKERS
		Satwik Reddy	1BY20CV015	
		Praneeth Reddy	1BY20CV025	

2nd Place	Mrs Shimna Manoharan	Sai Dedeepya P V	1BY20CV029	RO WASTE WATER UTILISATION TECHNIQUES
		Prakruthi B Reddy	1BY20CV032	
		Syed Affan	1BY20CV038	
		Aatina Altaf	1BY20CV001	

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

PBL REPORT

Department of Electronics and Communication Engineering, BMS INSTITUTE OF TECHNOLOGY AND MANAGEMENT, Avalahalli, Yelahanka, Bengaluru organized a BMSIT open day on 9th July 2022 in physical mode and students of IV and VI semester exhibited their projects. The projects exhibited the student's ability to apply their learning to solve the real world problems.

This semester around 98 PBL batches participated in PBL exhibition and 18 Projects were selected for second round of evaluation. These projects were presented on open day and evaluated by panel members consisting of external (from industry) and internal members based on various rubrics.





JUDGES FOR THE EVALUATION

1. Mr. A. Harihara Sravan, Technical Manager, SanDisk India Device Design Centre Pvt. Ltd.,

Bangalore. E-Mail: hariharasravangate@gmail.com and Ph.No: +91 8885528611

2. Mr.Poornachandra N Upadhyay, Senior Engineer, Tata Elxi,ITPL Main Rd, Bangalore.

E-Mail: pcuupadhyaya@gmail.com and Ph.No: +91 8885528611

PRIZE WINNERS LIST

IV Semester

Sl.NO	Name	USN	Title	Guide
First Prize				
1	Achyutha gowda C P	1BY20EC009	SILKWORM Incubator	Dr. Vijayalakshmi G V
	Alla Vamsi Krishna	1BY20EC021		
	Gangaraju Kushal Varma	1BY20EC065		
	Leti Manish Kumar	1BY20EC090		
2	P S Aakash	1BY20EC115	Women Safety System	Prof. T. Thyagaraj
	N Soundarya	1BY20EC105		
	H C Siddhartha Reddy	1BY20EC069		
	Abhishek K	1BY20EC004		
3	Sahana N	1BY20EC142	BRAIN TUMOR DETECTION USING MATLAB	Dr. Deepa Reddy N
	Shreya G D	1BY20EC156		
	Suchetha P B	1BY20EC168		
	Thejaswini H A	1BY20EC177		
Second Prize				
4	Pranav Shakthi	1BY20EC122	"IoT based Gas Leak Detection System"	Dr. Anitha V R
	Aditya Srinivas K	1BY20EC012		
	Vishvaraj	1BY20EC188		
	Vinayaka SM	1BY20EC141		
5	Ritik Ranjan Singh	1BY20EC137	Real Time AQI Monitor	Prof. Chandra Prabha
	Kaushalendra Singh	1BY20EC081		
	K.V Divyansh	1BY20EC077		
	Shikhar Pal	1BY20EC152		
6	Ishita choudhary	1BY20EC072	Quick Charge Trigger	Prof. Suryakanth B
	Rahul kumar	1BY20EC129		
	Tannu kumari	1BY20EC174		
	Vaishnavi	1BY20EC180		

VI Semester

S.NO	Name	USN	Title	Guide
First Prize				
1	Anagha B A	1BY19EC014	Noma for 5G	Dr. Rashmi.N
	Charitra	1BY19EC036		
	Divyani Jain	1BY19EC048		
	Rachita K A	1BY19EC124		
2	Abhilash B T	1BY19EC002	Automatic Waste segregation machine using Arduino	Prof. Suryakanth B
	Amaresh Angadi	1BY19EC013		
	Bhavyashree N	1BY19EC030		
	C Manoj	1BY19EC034		
3	Jason Vincent	1BY19EC065	Windows Cursor Control Using a Brain Computer Interface	Dr. Saneesh Cleatus T
	Juel George	1BY19EC069		
	R Ryhan Banu	1BY19EC134		
	Varun Sarathchandran	1BY19EC173		
Second Prize				
4	Dhanush H	1BY19EC046	Mecanum wheels robot	Dr. Dankan Gowda V
	Dhruva shankar reddy K	1BY19EC047		
	B.Uday Vamsi Krishna	1BY19EC029		
	B.Layavardhan Sai	1BY19EC033		
5	SRIGIRI SRAVANI	1BY19EC152	Smart Village through Information Technology	Prof. Shilpa Hiremath
	SUPRIYA M G	1BY19EC163		
	SRINIDHI GUDI	1BY19EC156		
	SUSHANT GUPTA	1BY19EC164		
6	SUSHMITHA REDDY	1BY19EC165	RECONFIGURABLE PATCH ANTENNA FOR 5G APPLICATIONS	Dr. Hanumanthraju
	RAGHAVENDRA D S	1BY19EC188		
	V R PRANAY	1BY19EC178		
	BHUPESH ROSHAN	1BY18EC192		

Program Outcomes Mapped and justification

PBL projects are mapped to the following PO's

PO1, PO2, PO3, PO4: Students have defined the problem, analysed, designed by applying mathematical formulations.

PO5, PO6: Students have used different modern tools and few projects are designed in the interest of societal concern.

PO9, PO10, PO12: Students were divided in to teams of four and they have communicated each other virtually during pandemic situation to complete the projects. All the students have presented their projects in three phases to the evaluators, which help them in improving communication skills. Students have developed prototypes and they are interested in improving the projects further to make it marketable. The concepts, design and development of small projects will enhance the students' knowledge and encourage them to build products after their graduation.

PBL projects are mapped to the following PO's

PO1, PO2, PO3, PO4: These PO's are mapped because, Problem statement needs to be analyzed, designed and apply mathematical formulations for making the prototype to work.

PO5, PO6: All projects have used different modern tools and few of them are societal concerns.

PO9, PO10, PO12: All the batches have worked in teams with good communication. The concepts that the projects have done will be of lifelong learning.

DEPARTMENT OF MECHANICAL ENGINEERING

The Department of Mechanical Engineering, BMS INSTITUTE OF TECHNOLOGY AND MANAGEMENT, Avalahalli, Yelahanka, Bengaluru organized a PBL Project review on 1st and 8th July 2022 to exhibit the project work carried out by the students of the IV and VI semester students. These projects showcase the student's ability to apply their learning to solve the real-world problems.

In this semester, IV semester students were grouped into 15 PBL batches (four students in each batch), while VI semester students were grouped into 20 PBL batches (three/four students in each batch) and totally 35 PBL batches carried out different projects. Most of the projects involves design and fabrication work and few were simulation or analysis based. All these projects were evaluated by internal committee on Friday, 1st July 2022 for VI semester students and Friday, 8th July 2022 for IV semester students based on the various rubrics in preliminary round and after critical evaluation 3 best projects from VI semester and 6 best projects from IV semester batches were selected for final round for OPEN DAY – Exhibition on Saturday, 9th July 2022.

The details of the best projects are as follows:

VI Semester:

SI NO.	Group/ Batch No.	Name of the student	USN	Title of the Project	Name of the Guide
1	B3	BRIJESH M R	1BY19ME010	MINI VACUUM CLEANER USING ARDUINO	Prof. SRIGANESH T G
		KARTHIK DB	1BY19ME020		
		TANVEER HUSSAIN K	1BY19ME048		
		VASANTH KUMAR G	1BY19ME051		
2.	B4	MUGILAN P	1BY20ME408	AUTOMATIC BLACK BOARD/WHITE BOARD CLEANER SYSTEM	Prof. M C MADHU
		PAVAN M	1BY20ME409		
		ABHISHEK A	1BY20ME400		
		TIMMAREDDY	1BY20ME414		
		ANVITH	1BY19ME023		
		PARTHA SARATHI	1BY19ME029		
3.	B1	NAMAN EDRAMI	1BY19ME026	VAPE VACUUM ACTUATED POP ENGINE	Dr. G L ANANTHAKRISHNA
		RAJATH M PATEL	1BY19ME032		
		SAMARTH NADIG	1BY19ME037		

IV Semester:

SI NO.	Group/ Batch No.	Name of the student	USN	Title of the Project	Name of the Guide
1	B2	MD DANISH	1BY20ME023	ALARM SYSTEM FOR THE SAFETY OF TODDLERS	PROF. SUNDARESH S
		HARSHVARDHAN SHARMA	1BY20ME018		
		RAHUL SINGH	1BY20ME038		
		MOHAMMAD SUEHAIL RATHER	1BY20ME025		
2.	B3	SHREYAS KASHYAP	1BY20ME044	WHISTLE COUNTER	DR. KEERTHI KUMAR N
		BHOOMIKA BHAT	1BY20ME009		
		V V SAI VEEKSHANA	1BY20ME048		
		SHARAN R RAMAN	1BY20ME042		
3.	B6	MOHIT K M	1BY20ME028	REGERATIVE BRAKING SYSTEM	PROF. MADHU M C
		PAVAN M	1BY20ME035		
		NANDAN REDDY	1BY20ME030		
		MOHIT R M	1BY20ME027		
4.	B11	KARTHIK HOBALIDAR	1BY21ME406	HYDRAULIC BRAKING SYSTEM	DR. G L ANANTHAKRISHNA
		BHUMESH H G	1BY21ME402		
		PRASHANTH S	1BY21ME408		
		VISHAL RAO SINDE	1BY21ME413		
5.	B5	ANANTHA H V	1BY21ME400	POWER HACKSAW USING SLIDER CRANK MECHANISM	PROF. KIRAN M D
		HEMANTH KUMAR G	1BY21ME404		
		S CHANDAN DEVADATT	1BY21ME409		
		VISHWANATH S M	1BY21ME414		
6.	B9	ASHISH D	1BY21ME401	CRANK SLOTTED LEVER MECHANISM	PROF. K CHANDRASHEKARA REDDY
		SIDDAIAH	1BY21ME411		
		CHANDRASHEKAR R	1BY21ME403		
		JEEVAN B G	1BY21ME405		

In the final round held OPEN DAY on Saturday, 9th July 2022, Mr. ATHITHA B J, Manager, Robert Bosch India Pvt.Ltd, Bengaluru as External Industry expert and Prof. K Chandrashekara Reddy, Assistant Professor as Internal Academic member critically evaluated these projects based on the societal relevance, completion of the set objectives, presentation and queries and finally rated the projects based on the marks scored. Top two projects from each semester were

awarded with a cash prize. The details of the award-winning projects are as follows:

PRIZE WINNERS List

Semester: VI

SI NO.	Name of the student	USN	Title of the Project	Name of the Guide	POSITION
1	NAMAN EDRAMI	1BY19ME026	VAPE VACUUM ACTUATED POP ENGINE	Dr. G L ANANTHAKRISHNA	I PRIZE
	RAJATH M PATEL	1BY19ME032			
	SAMARTH NADIG	1BY19ME037			
2.	MUGILAN P	1BY20ME408	AUTOMATIC BLACK BOARD/WHITE BOARD CLEANER SYSTEM	Prof. M C MADHU	II PRIZE
	PAVAN M	1BY20ME409			
	ABHISHEK A	1BY20ME400			
	TIMMAREDDY	1BY20ME414			

Semester: IV

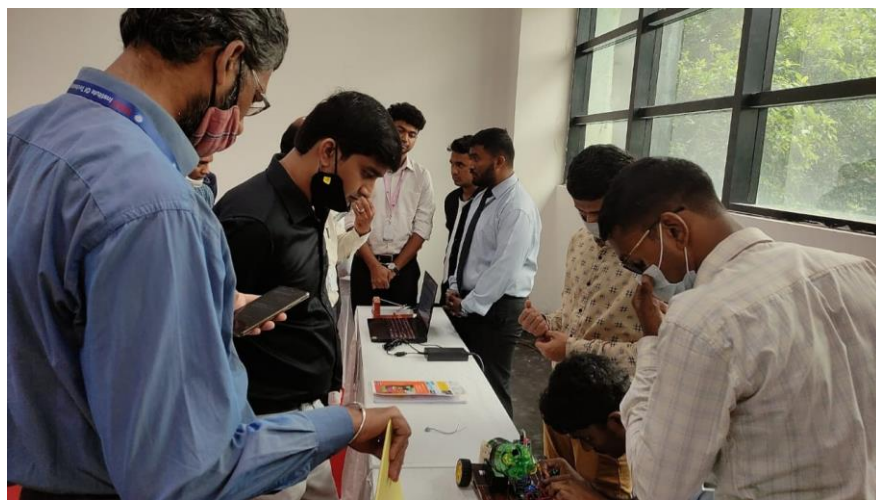
SI NO.	Name of the student	USN	Title of the Project	Name of the Guide	POSITION
1	MD DANISH	1BY20ME023	ALARM SYSTEM FOR THE SAFETY OF TODDLERS	PROF. SUNDARESH S	I PRIZE
	HARSHVARDHAN SHARMA	1BY20ME018			
	RAHUL SINGH	1BY20ME038			
	MOHAMMAD SUEHAIL RATHER	1BY20ME025			
2.	SHREYAS KASHYAP	1BY20ME044	WHISTLE COUNTER	DR. KEERTHI KUMAR N	II PRIZE
	BHOOMIKA BHAT	1BY20ME009			
	V V SAI VEEKSHANA	1BY20ME048			
	SHARAN R RAMAN	1BY20ME042			

JUDGES FOR THE EVALUATION

1. Mr. ATHITHA B J, Manager, Robert Bosch India Pvt.Ltd, Bengaluru (**External Evaluator**)
2. Prof. K Chandrashekara Reddy, Assistant Professor (**Internal Evaluator**)

Glimpses of OPEN DAY – Project Exhibition





Program Outcomes Mapped and justification

PBL projects are mapped to the following PO's

PO1, PO2, PO3, PO4: These PO's are mapped because, Problem statement needs to be analyzed, designed and apply mathematical formulations for making the prototype to work.

PO5, PO6: All projects have used different modern tools and few of them are societal concerns.

PO9, PO10, PO12: All the batches have worked in teams with good communication. The concepts that the projects have done will be of lifelong learning.

PBL Coordinator

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

The projects carried out under the Project Based Learning by the students of Department of Electrical and Electrical Engineering were exhibited on 09.07.2022 at the Open Day. The students of 4th and 6th Semester participated in the event.

Prior to the Open Day several projects carried out under the PBL were scrutinized by Dr Prashanth N A, Prof Suma Umesh, Prof Shilpa G, Prof Vikram Chekuri in the preliminary rounds. On the Open Day, Mr L. Lakshminarayan (AGM-BHEL) was invited as an external Judge. Dr Madhu Palati from EEE Department, BMSIT&M was the internal judge. The shortlisted projects were further evaluated on the Open Day.

Sl. No.	Semester	No. of Projects in the Open Day
1.	4 th Sem, EEE	05
2.	6 th Sem, EEE	05
	Total No. of Projects	10

The winners of the PBL during the Open Day are as follows:

Semester 4 th				
Position	USN	Name of the Students	Title of the Project	Guide
First	1BY20EE005	B Vaishali	Tyre Pressure Detector	H D Kattimani
	1BY20EE011	Dheeraj T		
	1BY20EE015	Harshitha S		
	1BY20EE023	Madhura G		
Second	1BY20EE017	Jashwanth Varma M	Smart Room Sensor	Babu Naik G
	1BY20EE027	Midhya Devasia		
	1BY20EE054	Vinay Jalihal		
	1BY20EE029	Nisarga G R		

Semester 6 th				
Position	USN	Name of the Students	Title of the Project	Guide
First	1BY20EE400	Arkanulla Khan	Object handling Robotic Arm	Dr Prashanth N A
	1BY20EE401	Mohith R		
	1BY20EE402	Nagaraju R		
	1BY19EE031	Navya M R		
Second	1BY19EE033	Neeraja Anand	Simulation of Dynamic Voltage Restorer for the Power Quality Improvement	Suma Umesh
	1BY19EE043	Rakesh R S		
	1BY20EE405	Rajith B Thampan		
	1BY20EE406	Sanjay NS		

Some pictures of the event PBL Exhibition during the OPEN DAY are :





Program Outcomes Mapped and justification

The PBL Projects are mapped to POs 1 to 5.

The purpose of PBL is to learn the courses that are being taught in the theory classes through hands on activities. Hence it is called project based learning. In these projects the students are encouraged to select a topic in which the implementation of the course ideas and concepts can be implemented in hardware or a set of codes.

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

Report: Sixteen groups have been formed for PBL projects from IV semester and VI semester respectively, out of 32 PBL projects four PBL groups, two PBL groups from IV semester and VI semester have been shortlisted based on the objectives of the project which are addressing health issues, societal concern, etc., in an innovative way for Open day BMSIT, which is conducted on 09.07.2022.

JUDGES FOR THE EVALUATION

1. Mr. Manoj B M, Technical Manager, Lear Automotive India PVT Ltd., Bengaluru
2. Mr. Siddiq Iqbal, Asst. Prof, Dept. of ETE, BMSIT&M, Bengaluru.

PRIZE WINNERS List

Winners List of 6th Semester Projects

Winners	Name	USN	Title of the Project
First Place	Aditya Patil Ananya Pathak Chitla Niraj Deeksha N	1BY19ET002 1BY19ET006 1BY19ET017 1BY19ET021	Blind Spot detection and Collision Avoidance in Vehicles Using FPGAs
Second Place	Nivedita S Sanjana Kadam	1BY19ET036 1BY19ET046	Detection of COVID-19 with FPGAs

Winners List of 4th Semester Projects

Winners	Name	USN	Title of the Project
First Place	Karthik S Halkeri Sagar Kothawar	1BY20ET030 1BY20ET049	RF solution to IoT and WSN applications
Second Place	Ameya Kanadikar Yashwanth N G Litesh G Sai Venkata Teja G V	1BY20ET019 1BY20ET063 1BY21ET400 1BY21ET401	Design and Development of medical device diagnosing Preclamsia in pregnant women

Photos/ Screenshots



Fig. Evaluators with PBL VI semester Team



Fig. PBL IV semester Team

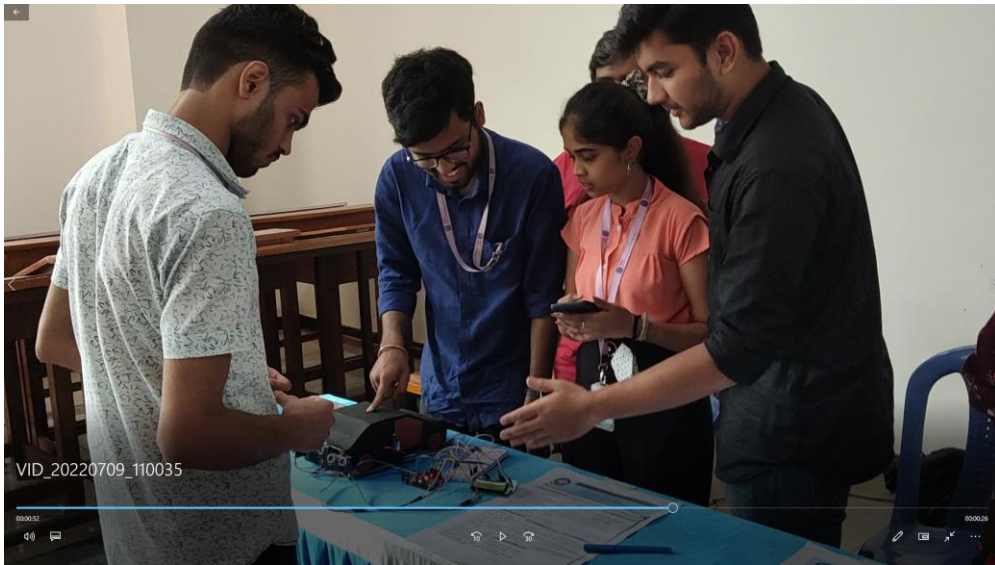


Fig. PBL VI semester Team

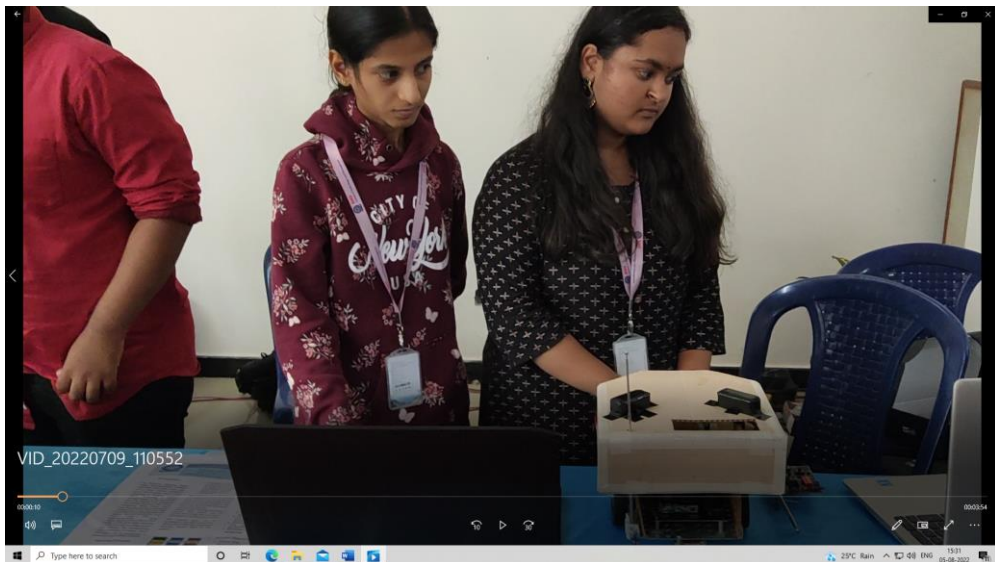


Fig. PBL VI semester Team



Fig. PBL First Prize winners of VI semester



Fig. PBL Second Prize winners of VI semester



Fig. PBL First Prize winners of IV semester



Fig. PBL Second Prize winners of IV semester

Program Outcomes Mapped and justification

PBL projects are mapped to the following PO's:

1. PO3: Design of the proposed idea is carried out by the team.
2. PO4: Experimentation of the model developed is carried out by the team.
3. PO5: Modern tool is used to validate the proposed idea.
4. PO6: Project model is developed with societal concern and engineering aspects.
5. PO8: Ethics is followed strictly while developing the project model
6. PO9: As a team project model is developed and communicated the working principle to the audiences.
7. PO10: The working model is explained to the evaluators and audiences by each member of the team.
8. PO11: Finance required for building the project model is estimated and managed accordingly.
9. PO12: Several concepts required to execute the project is learned by the team members through self-learning.

DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

Report:

The open Day was conducted on 8.7.2022 and 9.7.2022 in AI & ML Department. All 4th and 6th semester students presented their innovative ideas. The projects were mainly focusing on the domain Networking, Wireless Sensor Networks, Machine Learning and Big Data Analytics. Total of 38 projects were exhibited on 8.7.2022 and later 8 projects were shortlisted out of 38. 4 projects from 3rd semester and 4 projects from 5th semester. Those 8 projects were evaluated on 9.7.2022.

JUDGES FOR THE EVALUATION

- 1.
2. Nikhil D, ENGINEERING MANAGER, Intuit India Pvt Ltd.
3. Dr Bharathi Malakreddy A, Professor and Head, Department of AI & ML.
4. Dr Anupama H S, Associate Professor, Department of AI & ML.
5. Dr Vishwa Kiran S, Associate Professor, Department of AI & ML.
6. Dr Rakesh N, Associate Professor, Department of AI & ML.
7. Dr Umashankar M L, Assistant Professor, Department of AI & ML.
8. DR Pradeep K R, Assistant Professor, Department of AI & ML.
9. Dr Rajesh I S, Assistant Professor, Department of AI & ML.

PRIZE WINNERS List

PBL Prize winners:

4th Semester

First Prize	1BY20AI041	Rishika Manavi	Indian Sign Recognition using CNN	Dr Rajesh I S
	1BY20AI042	Rushil bali		
	1BY20AI048	Satvika T S		
	1BY20AI052	Shashwath P		

Second Prize	1BY20AI012	Dhruv	Food Waste Management System	Dr Bharathi M A
	1BY20AI035	Pavithra N		

	1BY20AI046	Sanskar Agarwal		
	1BY20AI059	Vaibhav Ahuja		

6th Semester:

First Prize	Detection of Alziemerh's Disease	Dr Bharathi M A	D Lakshmi Priya	1BY19AI014
			Madhumita V	1BY19AI028
			Aryan Tiwari	1BY19AI010

Second Prize	Gait Recognition	Dr Anupama H S	Janavi	1BY19AI023
			Ritwick	1BY19AI043
			Parag	1BY19AI038

Program Outcomes Mapped and justification

PBL projects are mapped to the following PO's

PO's Mapped:

PBL projects are mapped to the following PO's

PO1, PO2, PO3, PO4: These PO's are mapped because, Problem statement needs to be analyzed, designed and apply mathematical formulations for making the prototype to work.

PO5, PO6: All projects have used different modern tools and few of them are societal concerns.

PO9, PO10, PO12: All the batches have worked in teams with good communication. The concepts that the projects have done will be of lifelong learning.

Photos/ Screenshots

