BMS INSTITUTE OF TECHNOLOGY & MANAGEMENT

BANGALORE - 560064

PROJECT BASED LEARNING

Open Day Report – 04/11/2019

2019 – 20 Odd Semester

PBL Main Coordinator:

Dr. Anil G N

Prof & Head, CSE, BMSIT&M

Compiled and Edited by:

Mr. Shankar R

Asst. Professor, CSE, BMSIT&M

PREAMBLE

BMS INSTITUTE OF TECHNOLOGY AND MANAGEMENT, Avalahalli, Yelahanka, Bengaluru, organized OPENDAY: PROJECT EXHIBITION-2019 on MONDAY 4th, November 2019 to exhibit the project based learning work carried out by the students of the institution. The projects exhibited the student's ability to apply their learning to solve the real world problems. Several hundreds of projects in the emerging areas like IOT, Block Chain, Bluetooth, Cryptography and Network Security, Data Analytics and Data Mining, Automobile, Waste management, Android, Agricultural equipment, Health etc. were exhibited and their working principles were demonstrated. Experts from the industry and reputed academic institutions were part of the Judging team.

The Principal in his opening remarks said that BMSIT&M is a premier accredited institute, where a lot of emphasis is given to the project based learning, industry internships, innovative methods of teaching and learning process. He specifically mentioned about the spirit of "Do It Yourself" being inculcated in the students. The Institute provides platform for incubating technology and space for young entrepreneurs to germinate their ideas into products. He also mentioned that financial assistance and rewards are extended to the students.

A lot of focus on learning and project orientation is emphasized in order to make the students employable. Inter-disciplinary and social relevance projects are done by a large number of students. Total of around 472 projects were exhibited by the students. (CSE-160, ISE-58, TCE-29, ECE-101, EEE-30, ME-35, CIVIL-30, MCA-29).

The projects taken up by the students are associated to the courses of their semester in which students have taken up few challenges and realized the same

with the help of peer groups and faculty mentors. These projects were evaluated in two levels. First level by the internal committee and second level by external committee.

The judges expressed that many of the projects could be scaled up to product and patent level. They also felt that focus could be leading students from being employable to becoming entrepreneurs.

Some of the Societal relevance and Technological Innovative Projects demonstrated from each department:

Department of Electronics & Telecommunication Engineering

- **Biotic Phone Charger**
- **Smart Choice – Grab a Treat**
- **Osteoarthritis Early Detection**
- **Development of Automated Waste Segregation Device**
- **Flood Level Indicator**
- **Smart Dustbin**
- **Parking Management System**

Department of Mechanical Engineering

- **Water Level Indicator**
- **Home Automation using Mobile Application**
- **Automatic Railway Gate**
- **Blind Automatic Robot Controller**
- **e-Solar Compost Bin**
- **Automated Floor Cleaner**
- **Fire Fighting Robot**

Department of Electrical & Electronics Engineering

- **Automatic Room Light Controller with Visitor Counter**
- **2-D Printer with Stepper Motor Control**
- **Robotic Arm**
- **Vehicle Accident Prevention using Blink Sensor**

Department of Electronics & Communication Engineering

- **Line Marking Machine**
- **Medical Vending Machine**
- **Virtual Remote Laboratory**
- **Automated Solar Powered Lawn Mover**
- **Clap based Light Activation System**

Department of Computer Science & Engineering

- **Advance Network of Things**
- **Attendance using Images – FaceID**
- **Restaurant Assistant Robot**
- **Smart Irrigation using Arduino**
- **Blockchain for Money Transactions**
- **Light Intruder Alert System**

Department of Information Science & Engineering

- **Automatic Gas Booking**
- **Waste Segregation using Robotic Arm**
- **Collision Avoidance Blind Stick**
- **Hydrophonic Farming**
- **Blockchain for Patient Health Records**
- **Random Question Paper Generation System**

Department of Civil Engineering

- **BMSIT Location Finder**
- **Solar Energy for Street Lighting & Water Pumping System**
- **Fail Safe Urban Flood Management System**
- **Soil Stabilization of Parking Lot using Demolished Building Waste**
- **Plastic Wall Dadoing with Fireproof**
- **SBSC Blocks – a step towards Sustainability**

Master of Computer Applications

- **Secure M to M Communication**
- **Smart Xerox Service**

Computer Science & Engineering

Department of Computer Science & Engineering in association with Computer Society of India proudly hosted 2019-20 Odd Semester's Project Based Learning Open Day encompassing 145 projects in various fields of Computer Science.

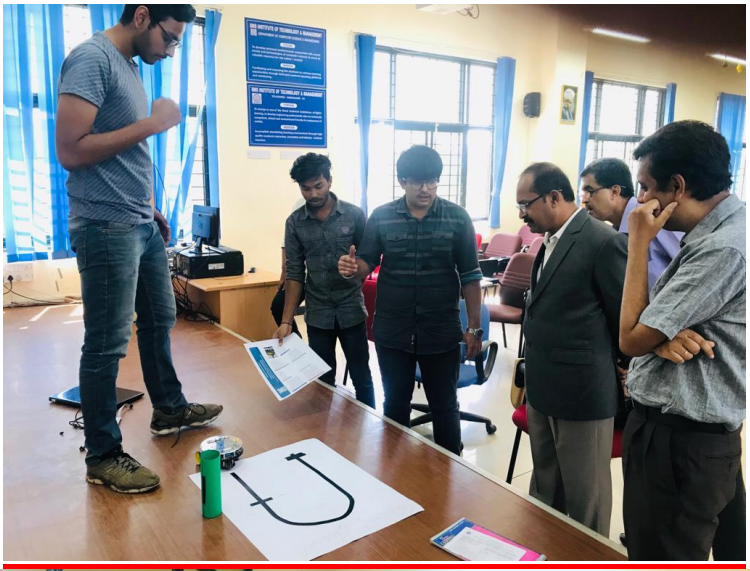
JUDGES

1. **Mr. Vijaya Kumar A S – Consultant, Aprameyah Technologies**
2. **Mr. Pradeep – Technical Head, SunSoft Technologies**
3. **Dr. Sunanda Dixit – Associate Professor, CSE, BMSIT&M**
4. **Dr. Satish Kumar T – Assistant Professor, CSE, BMSIT&M**
5. **Prof. Bharathi R – Associate Professor, CSE, BMSIT&M**

PRIZE WINNERS

Sem	Section	Name	PBL Title	Prize
3	A	Kamakshi Rishika Hiranmayi Janani	Smart Irrigation using Arduino	1
		Anmol Gaurav Ashotosh	Restaurant Assistant	2
	B	Prerna Roobini Sai Sparsha Tanuja Priyanka	Object Detection	1
		Kirthan Vishnupriya Nanma Sunjana Siddhanth	Line Follower Robot	2
	C	Shantanu Shubham Vidit Shreeharsh	Eduvoke	1
		Soumil Mithilesh Ruchit Abhishek	Tic-Tac-Toe INC	2
5	A	Arun Sumukha Charan Ganesh	Blockchain for Money Transactions	1
		Nitin Vikas Naveen Aman	Local Webserver using Raspberry PI	2
	B	Rohit Raahul Santhosh Yeshwanth	Voice Sniffer	1
		Prasanth	FaceID BMSIT	2

Sem	Section	Name	PBL Title	Prize
		Pranav		
		Rohit		
		Rutvi		
	C	Siddhanth	Intranet Chatting	1
		Sumit		
		Srijan		
		Zeeshan		
		Sai Srujana	Light Intruder Alert System	2
		Trupti		
		Tejaswini		
		Sinchana		
		Alekya		
		Varun		



Electronics & Communication Engineering

The projects taken up by the students are associated to the theme-SMART CAMPUS, which students have taken up few challenges and realized the same with the help of peer groups and faculty mentors. These projects were evaluated in two levels. First level by the internal committee consisting of Faculty members of ECE department and second level by external committee on various rubrics.

JUDGES

1. **Dr. Raghavendra Kulkarni, Distinguished Professor, Dept. of ECE, PES University**
2. **Mr. Pushpendra Yadav, SoC Design Engineer, Intel Corporation, Bangalore**

PRIZE WINNERS

Semester	Prize	USN	Name of the student	Title of the project
3	1	1BY18EC011	Devanshu Anand	Smart Dustbin
		1BY18EC047	Ajit Kumar	
		1BY18EC068	Mohit Rajeetabh	
		1BY18EC105	Himanshu Choudhary	
		1BY18EC196	Siddharth Prakash	Smart Campus Using Pzt
		1BY18EC001	Abhishek G Kankanwadi	
		1BY18EC156	Nishant Pandey	
		1BY18EC200	Satyam Kumar	
		1BY18EC163	Subramanya Swaroop Sp	Smart Bag
		1BY18EC144	Sanjay A S	
		1BY18EC167	Surya S	
		1BY18EC182	Vishesh K	
	2	1BY18EC186	Yashas D	Automated Lawn Mower Using Solar Energy
		1BY18EC002	Achyuth Desai	
		1BY18EC178	Vikas U Sirvi	
		1BY18EC014	Akshay S	
		1BY18EC080	K Narmadha	Device Control Using Smart Phone
		1BY18EC104	M Munawwar	
		1BY18EC111	Nidhisha	
		1BY18EC116	Vijay	
		1BY18EC031	Balvanth	
		1BY18EC151	Shrinidhi N Hegde	Smart College App
		1BY18EC102	Meghana S	
		1BY18EC146	Sayan Chakraborthy	
		1BY18EC070	Indrayudh Sengupta	

5	1	1BY17EC088	Manoj A	Snap Attendance
		1BY17EC131	R Ganesh Rohit	
		1BY17EC129	Prithviraj V	
		1BY17EC120	Praneet Dpv	
		1BY17EC037	Chethan	Vision Based Smart Attendance System
		1BY17EC009	Akash P. Galagali	
		1BY17EC041	Debanshu Biswas	
		1BY17EC164	Siddhesh	
		1BY17EC024	Anushka Tripathi	Class Room Automation Using Machine Learning And Embedded System
		1BY17EC061	Hubli Meghana	
		1BY17EC058	Harshitha S Prakash	
	2	1BY17EC020	Anitha J Saini	Sanitary Napkinvending Machine
		1BY17EC007	Aishwarya Narendra	
		1BY17EC048	Divya Prakruthi	
		1BY17EC090	Megha Jain:	Cloud Based Smart Waste Monitoring System
		1BY17EC098	N S Sindhura	
		1BY17EC103	Nannapaneni Kaavya	
		1BY17EC162	Shruthi S	
		1BY17EC142	Rohit Mr	Android Controlled Remote Controlled Security
		1BY17EC114	Pavan Y	
		1BY17EC067	Parikshith	
		1BY17EC179	Varun Venkatesh	
		1BY17EC111	Parikshit Y P	Line/Boundary Making Robot
		1BY17EC093	Mohan Kumar Rm	
		1BY17EC137	Ravadagundi Revanth	
		1BY17EC084	M Nikhil	
		1BY17EC190	Mustafa Khan	Msl 2.0
		1BY17EC175	Tejas Kumar	
		1BY17EC146	Saatvik Puranik	
		1BY17EC178	Vadiraj Raghavendra Adabaddi	
		1BY17EC065	Jerin Gregory Benny	Self Service Library Kiosks
		1BY17EC077	Kartik Patil	
		1BY17EC051	Drupad Ramesh	
		1BY17EC047	Diksha B Shetty	
		1BY17EC053	E Niveditha	

BMS Institute of Technology and Management

Avalahalli, Doddaballapura Main road, Bangalore - 560064
(Approved by AICTE, Affiliated to VTU)
Accredited by NBA and Certified with 'A' grade by NAAC

Department of Electronics and Communication Engineering

Welcomes you to

"OPEN DAY"

EXHIBITION - PROJECT BASED LEARNING

Date:4TH November 2019

Venue: I &II Floor, Academic Block

VISION OF THE DEPARTMENT	MISSION OF THE DEPARTMENT
Be a pioneer in providing quality education in Electronics, Communication and allied engineering fields to serve as valuable resource for industry and society.	1. Impart sound theoretical concepts & practical skills through innovative pedagogy. 2. Promote interdisciplinary research. 3. Inculcate professional ethics..

Information Science & Engineering

Around 58 projects were showcased on this event. Some of the projects were Robotic arm for waste segregation, Smart room system, Blind stick, Smart monitoring of LPG Cylinder, Home automation using IoT, CPTS Ticketing System. Students worked on various domains like IoT, Robotic, AI, Bigdata and Cyber Security. This event helped students to gain knowledge on latest technologies and enhance their technical skills.

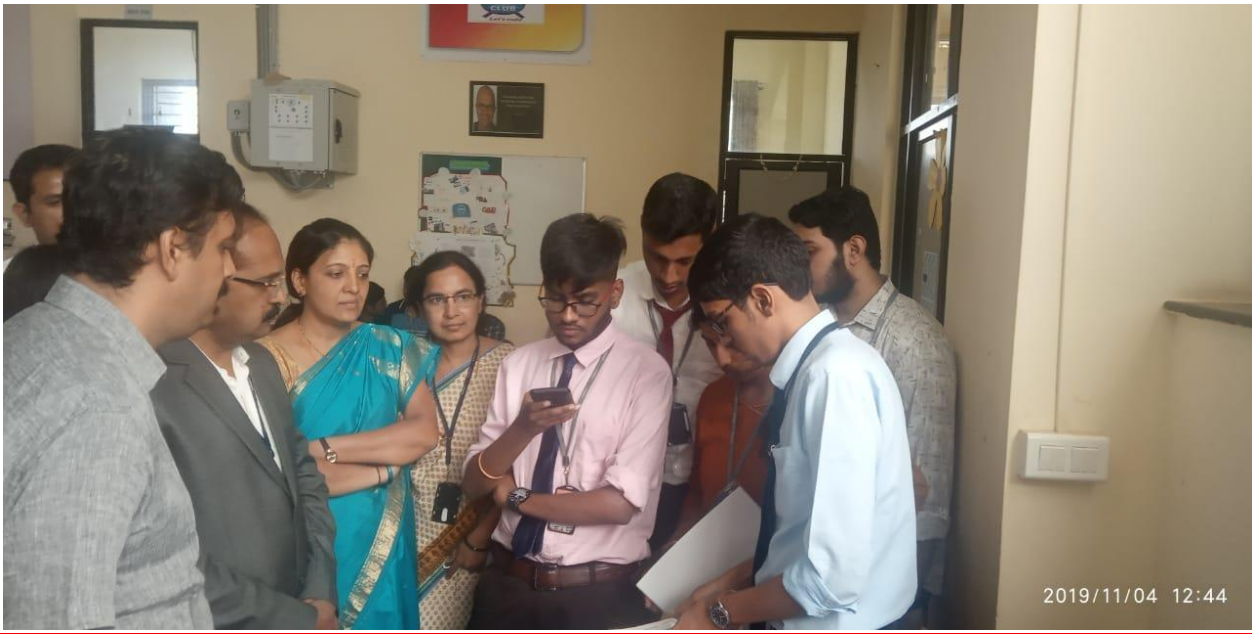
JUDGES

1. **Ms. Madhuri N Kirani from Citrix Systems Inc**
2. **Mr. Aditya Mallampali from Cypress Semiconductor**

PRIZE WINNERS

Sem / Section	USN	Name	Project Title	Prize
3A	1BY18IS034	B E Abhijith	Smart cylinder monitoring	1
	1BY18IS005	Adarsh Sadanand Shetty		
	1BY18IS037	Chaitanya M		
	1BY18IS003	Achutha Sandesh		
	1BY18IS033	Ayanabha Talukdar	Waste Segregation via Robotic ARM	2
	1BY18IS040	Chandra Prakash Choraria		
	1BY18IS047	Dona Bhowal		
	1BY18IS048	Faiqa Farooq		
3B	1BY18IS102	Rose Yadav	ROBUSTMADE	1
	1BY18IS083	Prabhat Chhajer		
	1BY18IS077	Paras Goyal		
	1BY18IS100	Ritwik Singh		
	IBY18IS073	Nikhil Anand	Smart fuel Indicator	2
	IBY18IS087	Pranav R D		
	IBY18IS120	Sumukha S		
	IBY18IS076	Nithin UralaM R		
5	1BY17IS025	Joswin Melrick Lobo	AI CHATBOT	1
	1BY17IS010	Anmol Patil		
	1BY17IS036	NiKitha Hasbi		
	1BY17IS028	Kruthika Ramesh		
	1BY17IS022	Hima J	Facial recognition Attendance Management system	2
	1BY17IS063	vishal Anand		
	1BY17IS049	Sanketh S Jain		

Blind Stick



Smart Monitoring of LPG Cylinder.

Civil Engineering

Totally 30 projects have been exhibited (17 of 7th semester and 13 of 3rd semester). Two resource personnel (academic based and industry based) had judged the event.

The criterion of evaluation included Presentation skills, relevance of project, Significance to Environment/Society, Weather patentable or Publishable or Presentable in Conference & Viva.

Out of 30 projects, two best projects from each semester were awarded.

JUDGES

1. **Dr Raja Gopal Reddy Chintakunta, Professor, Department of Civil Engineering (MSRIT)**
2. **Mr. Praveenjith, Managing Director Paradigm Environmental Strategies (P) ltd. (Eco paradigm).**

PRIZE WINNERS

Sem	Name	PBL Title	Prize
3	D Pranay Reddy	Fail Safe Urban Flood Management System	1
	Sharom Shaik		
	Taha Misba		
	Gurudeep G	Study of Need for Elevated Shoulders in a Smart City	2
	Manohar B M		
	Suhas M Gowda		
	Tanzil Ahmed R		
5	Puneeth B	Performance Study of Fenugreek for its Hydrogel Properties for its Futuristic Role in Enhancing Expanse and Efficiency of a Green Campus	1
	Akash N		
	Rakshith A E		
	Bhuvan P G		
	Vikas C	Plastic Wall Dadoing with Fireproof Analysis	2
	Praveen kumar D S		
	Darhsan J		

Mechanical Engineering

The projects exhibited the student's ability to apply their learning to solve the real world problems. More than 30 projects were demonstrated on the concept of smart campus. Projects like Mechanical gate opener, Smart bin, Firefighting robots, Ultrasonic walking stick, MAT generator, smart campus security and automatic floor cleaning etc were exhibited.

Experts from GE India, Bangalore and Quest Global, Bangalore were part of the judging team. Number of projects exhibited is 35 (17 from III Sem and 18 from V Sem). Project exhibition were held in CR 303 and CR 304 for III and V semester students respectively.

The projects taken by students were evaluated in three levels. First and second level by the internal committee and third level by external committee.

The judges expressed that many of the projects could be scaled up to product and patent level. They also felt that focus could be leading students from being employable to becoming entrepreneurs

PRIZE WINNERS

3rd Semester			
Prize	**Project Title**	**Students**	**Guide**
I	MAT Generator	1. Kiran V 2. Md. Mastanulla 3. N Sharan 4. Narendra Sadanad H	Dr. N Suresh
II	Plant Monitoring System Using IOT	1. Shibham B 2. Shivam Kumar 3. Shivam Sundriyal 4. Shrinidhi N	Dr. Sangamesh B
5th Semester			
Prize	**Project Title**	**Students**	**Guide**
I	Accident Area Code Information Through Mobile SMS	1. K Gowtham Sai 2. P Chanukya 3. Simikha P V 4. Rajath Kumar S	Dr. Santhosh
II	Automatic Cleaner	1. Nihar Venkat Sai 2. Nikhil R 3. Prajwal R Patil 4. Prajwal S Bhat	Mr. Keerthi Kumar N

Electrical & Electronics Engineering

32 projects were demonstrated on the concept of smart campus.

Sl. No.	Semester	No. of Projects
1.	3rd Sem, EEE	16
2.	5th Sem, EEE	16
	Total No. of Projects	32

PRIZE WINNERS

Semester	3rd			
Prize	USN	Name of the Students	Title of the Project	Guide
1	1BY18EE014	Dasari Manoj Kumar	Bluetooth Controlled Car Using Arduino	Manjula.
	1BY18EE015	Debanshu Poddar		
	1BY18EE001	Aayan Singh		
	1BY18EE017	Deepanshi Singh Rao		
2	1BY18EE052	Shubham S Raheja	Google Assistant Controlled Air Quality Monitor	Babu Naik
	1BY18EE053	Sujeeth Kumar G K		
	1BY18EE054	Sumanth Hande P		
	1BY18EE059	Ullas Raju C R		
3	1BY18EE022	Guru Anavarhadhan S	Bluetooth Controlled Irrigation System	Manjula
	1BY18EE024	Harshitha Jagadish		
	1BY18EE025	J P Jaipuneeth		
	1BY18EE403	Dinesh R		

Semester	5th			
Prize	USN	Name of the Students	Title of the Project	Guide
1	1BY17EE058	Wilson Jackson	Obstacle Avoiding Robot	Suma Umesh
	1BY17EE014	Deeksha P		
	1BY17EE033	Nikitha E Kattimani		
	1BY17EE032	Niharika K N		
2	1BY17EE055	Vikhyat D Bharadwaj	2D Printer With Stepper Motor Control	Dr Prashant A. A.
	1BY17EE018	Girish L G		
	1BY17EE001	Abhishek H N		
	1BY17EE015	Deol P A		
3	1BY17EE047	Siddharth K Ghodasara	Automated Collabrative Robotic Arm (ACRA)	Dr N Rama Rao
	1BY17EE013	Binoj T B		
	1BY17EE037	Prashanth R		
	1BY17EE010	B Bharath Bhaskar		

CHILLOUT

Electronics & Telecommunication Engineering

A total of 29 projects were showcased. Out of which nine best projects were selected for the first and second and third prize from each Semester.

JUDGES

1. **Mr Raghu Vamshi, Product Manager Oracle**
2. **Dr Umesh Reddy, Associate Professor, ECE, M S Ramaiah Institute of Technology**

The External Judges was from the industry Sector, Mr Raghu Vamshi, Product Manager Oracle. The other judge was from M S Ramaiha Institue Of Technology Dr Umesh Reddy Associate Professor ECE dept.

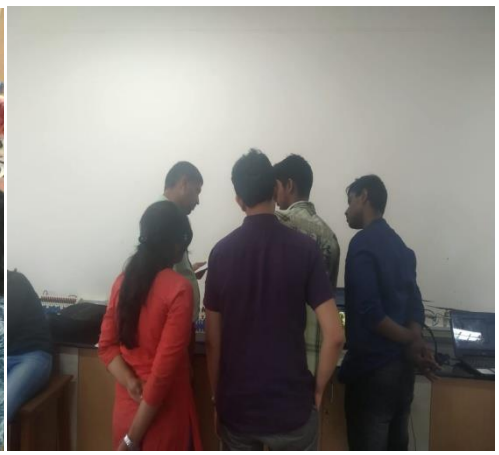
PRIZE WINNERS

Semester	Prize	USN	Name of the Student	Title of the Project
V	I	1BY17TE024	P Vishnuvardhan Reddy	Design Model And Simulate Liquid Gated Ion Selective Fet For Sensors Application
		1BY17TE037	Srikanth R	
		1BY17TE021	M Sree Karan	
	I	1BY17TE010	Chandan L Nayak	Osteoarthritis Early Detection
		1BY17TE002	Aditya Datta G N	
		1BY17TE014	Goutham C	
	II	1BY17TE001	Abhilash S	Reward Bin
		1BY17TE034	Siri N Rao	
		1BY17TE030	Sailakshmi Saravanan	
		1BY17TE006	Aman Sharma	
	III	1BY17TE005	Akshatha S M	Development Of Microstrip Patch Antenn To Achieve Multi Band Performance
		1BY17TE009	Chaithra D S	
		1BY17TE044	Vidhu Shekhar Tripathi	
		1BY17TE033	Shreyas N Rao	
III	I	1BY18TE037	Naureen Khan	Flood Level Detector
		1BY18TE024	Liya Gafar	
		1BY18TE045	Rakshita W	
	II	1BY18TE043	Prajwal P	Application Of Ultrasonic Waves(Smart Bin)
		1BY18TE018	Hima V	
		1BY18TE023	Kuber Bellad	

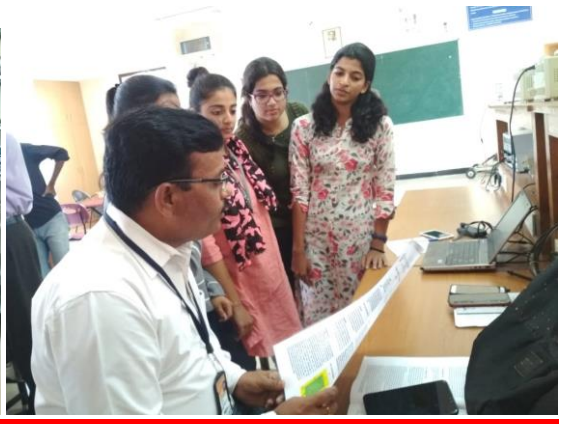
		1BY18TE038	Neeraj K	
	II	1BY18TE019	K V Sagar	Door Securityalarm Using Google Assistant
		1BY18TE020	Kv Skandha	
		1BY18TE037	Naureen Khan	
		1BY18TE002	Akshat	
	III	1BY18TE022	Karunya Sankar	Techno Eye
		1BY18TE051	Rushank Prabhudesai	
	III	1BY18TE006	Ashwini C Gujjar	Mobile Phone Detector
		1BY18TE036	Namitha M	
		1BY18TE026	Manasa SH	

Judges

Judge addressing the gathering



5th sem projects evaluated by principal and the judges



3rd sem project evaluation by Dean of Academics and Dean of External Affairs.

Master of Computer Applications

The Open Day (Project Exhibition) was conducted at the Dept. of MCA which received a huge participation from the students of III Semester and V Semester MCA. III Semester projects were simple gaming projects carried out using Python programming language. V Semester projects were mostly app-based and IoT projects developed using Raspberry-Pi, Pic-18 and Arduino boards. Total 29 projects were evaluated by the judges

The program started with the welcome speech by Dr. Aparna K., HoD, Dept. of MCA and briefing about the idea behind making the students take up PBL to enhance the learning experience by practical implementation of the theoretical concepts. The evaluation was done based on criteria like innovation, clarity in the objectives set and met, communication, team work, and societal/industrial/environmental relevance of the project. Two best projects from each semester were selected and cash prizes were announced.

JUDGES

1. **Mr. Srinivasa Reddy, founder and Managing Director of Srinidhi Innovative InfoSoft Pvt. Ltd, Bengaluru**
2. **Mr. Ranjith Sundarrajan, Software Development Manager, Tesco, Bengaluru.**

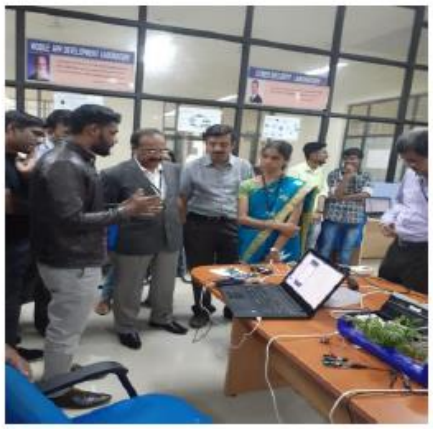
PRIZE WINNERS

Semester: 3

Prize	USN	Name of the Students	Title of the Project
1	1BY18MCA02	Adithya K	Tic Tac Toe Game
	1BY18MCA25	Saket Anand	
2	1BY18MCA04	Amit Kumar	Threat words recognition in English Speech
	1BY18MCA24	Sahdev Kumar Gupta	
	1BY18MCA27	Seema Kumari	

Semester: 5

Prize	USN	Name of the Students	Title of the Project
1	1BY17MCA18	Rohith B	Secure M-to-M Communication
	1BY17MCA24	Sohail Khan	
2	1BY18MCA04	Girija V	Smart Xerox Service
	1BY18MCA24	Soundarya H N	



PBL EVALUATION – COLLEGE LEVEL

BMS INSTITUTE OF TECHNOLOGY AND MANAGEMENT
Bengaluru 560064

PROJECT BASED LEARNING (PBL) 2019-20

05-11-2019

PBL EVALUATION: COLLEGE LEVEL

FIRST PRIZE

Project Title : **Automated Collaborative Robotic Arm [ACRA]**

Department : EEE

Student Name: Siddharth KG(1BY17EE047), B Bharath Bhaskar(1BY17EE010), Prashanth R(1BY17EE037), Binoj T B(1BY17EE013)

Guide Name : Dr N Ramarao

SECOND PRIZE

Project Title : **Automatic Line Balancing Robot**

Department : E&C

Student Name : Parishit Y P(1BY EC111), R Revanath (1BY EC137) Mohan Kumar R H(1BY EC093), Nikhil M (1BY EC084)

Guide Name : Prof. Suryakanth B M

THIRD PRIZE

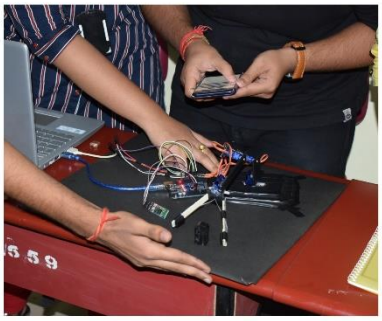
Project Title : **Smart Fuel Indicator**

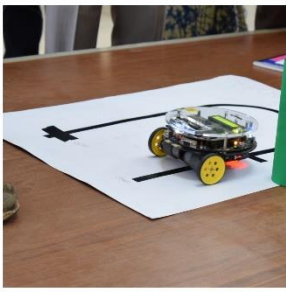
Department : IS&E

Student Name : Nitin Urala MR(1BY18IS076), Pranav R D(1BY18IS087), Shohenbahmed N G(1BY18IS112), Sumukha S 1BY18IS120),

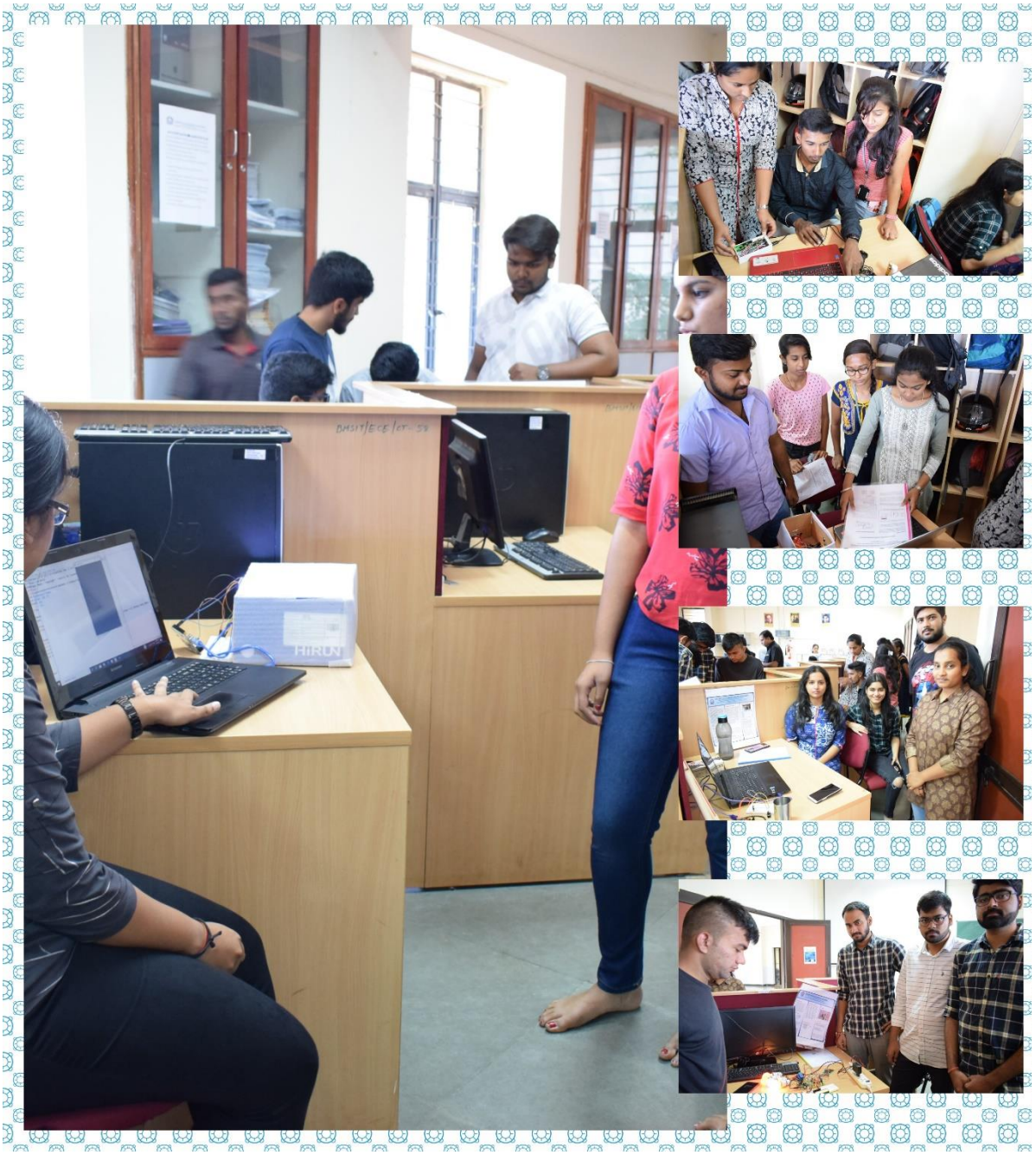
Guide Name : Prof. Mahalaksmi

GALLERY





BMSIT/SD/050



Thank you!