SRI MANAKULA VINAYAGAR ENGINEERING COLLEGE

(An Autonomous Institution)
Puducherry - 605 107
(An Autonomous Institution)
Madagadipet, Puducherry

**Department of
Electronics and Communication Engineering**

Club Activities Report (2022-23)
Robotics and Automation Club

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Preface

      The Robotics Club of the Electronics and Communication Engineering (ECE) Department is established with the vision of fostering innovation, creativity, and technical excellence among students. In an era where automation, artificial intelligence, and intelligent systems play a vital role in engineering and society, the club serves as a platform to bridge theoretical knowledge with practical implementation.

      The club encourages students to explore the interdisciplinary nature of robotics by integrating concepts from electronics, communication systems, embedded systems, control engineering, and programming. Through hands-on workshops, project development, technical talks, competitions, and collaborative learning, the Robotics Club aims to nurture problem-solving skills, teamwork, and research-oriented thinking.

      By providing exposure to emerging technologies and real-world applications, the Robotics Club empowers ECE students to become competent engineers and innovators, ready to meet future technological challenges and contribute meaningfully to industry and society.

Prepared by

G.K.Senthil Kumar
Assistant Professor
Department of Electronics and Communication Engineering

Dr.P.Raja   Dr. A.A.Arivalagar   Dr. V.S.K. Venkatachalapathy
(HoD/ECE)   (IQAC Co-Ordinator)   (Director Cum Principal)

About the Institution

Sri Manakula Vinayaga Educational Trust was founded to provide quality and affordable education to the weaker sections of society. The trust established Sri Manakula Vinayagar Engineering College (SMVEC) in 1999. SMVEC is an autonomous institution affiliated to Pondicherry University. It offers a variety of undergraduate, postgraduate, and research programs in engineering. SMVEC has been accredited by NAAC with "A" grade and NBA. The institution is also accredited by TATA consultancy services. The college has a good placement record with students getting job offers from top companies in India and abroad. SMVEC students have won many awards and accolades for their academic achievements.

Vision

To be globally recognized for excellence in quality education, innovation and research for the transformation of lives to serve the society.

Mission

M1: Quality Education : To provide comprehensive academic system that amalgamates the cutting edge technologies with best practices.

M2: Research and Innovation : To foster value-based research and innovation in collaboration with industries and institutions globally for creating intellectuals with new avenues.

M3: Employability and Entrepreneurship : To inculcate the employability and entrepreneurial skills through value and skill based training.

M4: Ethical Values : To instill deep sense of human values by blending societal righteousness with academic professionalism for the growth of society.

About the department

The Department of Electronics and Communication Engineering is a top-notch department that offers high-quality UG, PG and Ph.D. programs. The UG program B.Tech - Electronics and Communication Engineering is accredited by the National Accreditation Board, AICTE-New Delhi, and has a placement record of over 80%. The department's graduates are highly sought-after by employers in the Electronics and Communication sector.

Our department contributes significantly to achieving the national objective of envisioning the world with a clear and deep commitment and a sincere desire to meet the expectations of a rising, fast-developing technology.

Vision

Facilitate academic excellence and research among Electronics and Communication Engineers to meet global needs with high competence and ethical professionalism.

Mission

- **Academic Excellence:** To impart learning skills to meet the global challenges in the field of Electronics and Communication Engineering.
- **Research and Innovation:** To provide excellence in research and innovation through multidisciplinary specialization.
- **Employability and Entrepreneurship:** To enhance inter and intra-personal skills to make them employable and entrepreneurs.
- **Ethics:** To inculcate the significance of human values and professional skills to serve society.

Programs offered

- B.Tech - Electronics and Communication Engineering

- M.Tech - Electronics and Communication Engineering

- M.Tech - VLSI & Embedded Systems

- Ph.D - Electronics and Communication Engineering

About the Robotics and Automation Club

Summary of Club

The Robotics and Automation Club is a student organization that promotes the study and application of robotics and automation. The club offers a variety of activities and events for students, including:

- Technical workshops and lectures
- Competitions
- Field trips
- Social events

The club is open to all students interested in robotics and automation, regardless of their experience level. The club is a great way to learn about robotics, meet other students with similar interests, and get involved in hands-on projects.

The club is currently planning a number of events for the upcoming semester, including a robotics competition, a field trip to a local robotics company, and a social event. The club is also looking for new members to join and help plan and execute these events.

Objectives of Club

The objectives of the Robotics and Automation Club are:

- To promote the study and application of robotics and automation.
- To provide students with opportunities to learn about robotics and automation through technical workshops, lectures, competitions, field trips, and social events.
- To help students develop their technical skills and knowledge in robotics and automation.
- To encourage students to participate in robotics and automation competitions and events.
- To provide a forum for students to network with other students and professionals in the field of robotics and automation.
- To promote the field of robotics and automation to the public.

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Department of Electronics and Communication Engineering

Report Number :	01	Duration :	Feb 16 – Feb 29, 2024	Submission Date:	05-03-2024

MEMBERS OF ROBOTICS AND AUTOMATION CLUB

Date of inception	2014
Name of the Coordinator	Dr.P.RAJA

S.NO	Position	Name	Year/ Sem/ Sec	Contact Number
1.	President	1. Soorya.GS	III/ V/ A	7904601540
2.	Vice president	1. Suriya.I 2. Mohamed Riyaif .M	III/ V/ A III/ V/ B	7072105299 9791638595
3.	Secretary	1.Gokulan.S 2.Aakash.PR 3.Kowsalaya.K	III/ V/ C III/ V/ C III/ V/ C	9486971828 8072982353 9597736610
4.	Joint Secretary	1. Sooraj.N 2. Keerthana.B 3.Pachaiyappan	III/ V/ A III/ V/ C III/ V/C	7824983590 8778802002 9489401319
5.	Treasurer	1. Marshal Regan Raj 2.Shrish 3.Albin Rajesh	III/ V/ A III/ V/ B III/ V/ A	9655291750 9500185395 6383438155
6.	Technical Head	1.Abdul Rahman.A 2.Hariharan.S 3.Harini.K	III/ V/ B III/ V/ C III/ V/ C	8438190076 7010581117 9344641883
7.	Assistant Technical Head	1.Sathish Kumar.PS 2.Santhosh.S 3.Yokeshwar.J 4.Devanesh.S	II/ III/ D II/ III/ D II/ III/ D II/ III/ D	9095018226 8248908841 9360654828 7598597756
8.	Organization Head	1.Mridhu Malya 2.Gomathi.S 3.Suvatha.V	III/ V/ B III/ V/ C III/ V/ B	9789183512 7904781517 7598407819
9.	Assistant Organization Head	1.Balamurugan.J 2.Gowtham.G	II/ III/ A II/ III/ A	8870947664 8608352315
10.	Publicity Head	1. Dharshan.S 2. Harish Balaji 3. Maximus Auguste	III/ V/ B III/ V/ A III/ V/ B	7604827048 9487032818 8056550535
11.	Assistant Publicity Head	1.Harish.M 2.Rohith.K 3.Harish.R	II/ III/ B II/ III/ C II/ III/ A	6383275748 9025358273 9943984243
12.	Creative Head	1. Snekha.S 2. Prethicksha.R	III/ V/ B III/ V/ B	9566677100 9342613537

13.	Assistant Creative Head	1.HariniVashini. P	II/ III/ D	8300868246
		2.Kowasalya.V	II/ III/ D	6380783729
		3.Aaisha Shahani	II/ III/ A	9790983386

PURPOSE OF THE CLUB ACTIVITIES

Robotics and automation club was established in our college in the year 2014 with the motto to provide opportunity to students to get exposed to interdisciplinary branch of Engineering. The purpose of a Robotic and Automation Club is to focus specifically on robotics and automation technologies. This club is dedicated to exploring, learning, and advancing the field of robotics and automation. The main purposes of such a club include:

Education and Skill Development: The club aims to educate its members about robotics and automation concepts, principles, and technologies. It provides a platform for hands-on learning, where members can develop practical skills in designing, building, and programming robots and automated systems.

Exposure to Cutting-Edge Technologies: The club exposes its members to the latest advancements in robotics and automation, keeping them updated with the rapidly evolving technology in these fields. Project-Based Learning: Members work on various robotics and automation projects, both individually and in teams. These projects help members apply their knowledge, experiment with ideas, and gain valuable experience.

Interdisciplinary Collaboration: Robotics and automation involve various disciplines, such as mechanical engineering, electrical engineering, computer science, and more. The club encourages interdisciplinary collaboration, fostering a holistic understanding of the field.

Competitions and Challenges: The club may participate in robotics competitions and challenges to test members' skills and creativity. Competitions provide motivation and a sense of achievement as members strive to build successful robots or automation solution.

Activity 1 - ROBOFEST (IEI Conclave)

Name of the Activity   : **ROBOFEST (IEI Conclave)**

Name of the Club   : Robotics and Automation Club

Date / Day of Activity   : 01/04/2023 Saturday

ROBOFEST, conducted as part of the **IEI Conclave**, was successfully organized by the **Department of Electronics and Communication Engineering (ECE)** with the objective of promoting technical innovation, hands-on learning, and student engagement in the field of robotics and automation. The event was organized under the guidance of the **Institution of Engineers (India) (IEI)** and witnessed active participation from students of various engineering institutions.

The event provided an excellent platform for students to design, develop, and demonstrate robotic systems that address real-world engineering challenges. Participants took part in various robotics-based competitions such as robot fabrication, task-based robotic challenges, line-following robots, obstacle detection, and automation-based problem-solving tasks. These activities enabled students to apply their theoretical knowledge of electronics, sensors, microcontrollers, communication systems, and control techniques in a practical environment.

ROBOFEST also included technical sessions and interactions with experienced faculty members and IEI professionals, which enriched students' understanding of emerging technologies such as robotics, embedded systems, artificial intelligence, and Industry 4.0. The event emphasized teamwork, innovation, critical thinking, and effective communication skills among participants.

FEEDBACK

Was the class useful and relevant to the topic?	The session was clear and understandable.	How did the club members interact with the students?
75% Excellent, 12% Good, 7% Satisfactory, 6% Unsatisfactory	80% Excellent, 15% Good, 5% Satisfactory, 0% Unsatisfactory	70% Excellent, 17% Good, 10% Satisfactory, 3% Unsatisfactory
■ Excellent ■ Good ■ Satisfactory ■ Un satisfactory	■ Excellent ■ Good ■ Satisfactory ■ Un satisfactory	■ Excellent ■ Good ■ Satisfactory ■ Un satisfactory

Gallery of Photographs

Preparing Arena for robofest	Students participated in roborace

Activity 2 - Introduction to basic Robotics

Name of the Activity   : **Introduction to basic Robotics**

Name of the Club   : Robotics and Automation Club
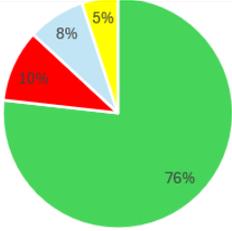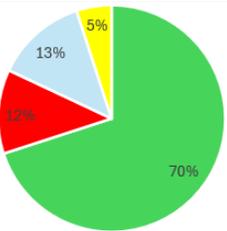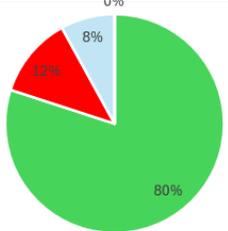
Date / Day of Activity   : 08/04/2023 Saturday

Activity executed for   : II year /IV Sem / C Sec

Robotics is an interdisciplinary field of engineering and science that deals with the **design, construction, operation, and application of robots**. It integrates core concepts from electronics, mechanical engineering, computer science, and control systems to develop intelligent machines capable of performing tasks automatically or semi-automatically. In recent years, robotics has gained significant importance due to its wide applications in industries, healthcare, agriculture, defense, and domestic automation.

A **robot** is a programmable machine equipped with sensors, actuators, and a control system that enables it to interact with its environment. Sensors help the robot to perceive physical parameters such as distance, temperature, light, and motion, while actuators such as motors and pneumatic systems allow it to perform physical movements. The control unit, often based on microcontrollers or embedded systems, processes sensor data and generates appropriate control signals to achieve the desired task.

Basic robotics involves understanding fundamental components such as **power supply, sensors, actuators, controllers, and communication systems**. Programming plays a crucial role in robotics, as it defines the logic and sequence of operations to be carried out by the robot. Simple robotic systems like line-following robots, obstacle-avoiding robots, and pick-and-place mechanisms are commonly used to introduce students to the principles of robotics.

FEEDBACK

Was the class useful and relevant to the topic?	The session was clear and understandable.	How did the club members interact with the students?
5% 8% 10% 76% ■ Excellent ■ Good ■ Satisfactory ■ Un satisfactory	5% 13% 12% 70% ■ Excellent ■ Good ■ Satisfactory ■ Un satisfactory	0% 8% 12% 80% ■ Excellent ■ Good ■ Satisfactory ■ Un satisfactory

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Department of Electronics and Communication Engineering
Attendees List
Batch – 2021-2025

Year/ Semester/Sec	:	II / IV / C
Name of the Club	:	Robotic and Automation
No of Students Present	:	69
No of Students Absent	:	03
Absentees Reg No	:	21UEC076, 21UEC107, 21UEC169

S.No.	Reg No.	Name
1	21UEC002	AAKASH P R
2	21UEC007	AKASH S
3	21UEC008	AKSHAYA S
4	21UEC014	ARTHI S
5	21UEC015	ARUNACHALAM S U
6	21UEC018	ASHIK AHAMED H
7	21UEC020	ASWINI K
8	21UEC022	BALAKUMARAN R
9	21UEC030	BHUVANESHWARAN M
10	21UEC035	DEVANATHAN R
11	21UEC045	DINAKARAN J
12	21UEC047	ELAVENIL R
13	21UEC050	GOKULAN S
14	21UEC052	GOMATHI S
15	21UEC053	GOUKULAN S
16	21UEC054	GOVARDINAN S
17	21UEC058	GURU PRASATH S
18	21UEC060	GURUPRIYAN V
19	21UEC062	HARIHARAN S
20	21UEC063	HARINI K
21	21UEC064	HARINI R
22	21UEC068	HARISH JAYARAAJ S
23	21UEC072	HEMACHANDIRAN V
24	21UEC074	HUSSAINA PARVEEN A
25	21UEC075	IMRANALI H
26	**21UEC076**	**INDHUJA R**
27	21UEC078	JANARTHANAN M
28	21UEC081	JAYASUREYA B
29	21UEC083	JOSEPHINE MONICA A
30	21UEC084	KAMALI K

S.No.	Reg No.	Name
31	21UEC086	KAVYA S
32	21UEC087	KEERTHANA B
33	21UEC090	KEERTHIVASAN B
34	21UEC091	KEERTHIVASAN S
35	21UEC093	KOUSHIK KABILAN A
36	21UEC094	KOWSALYA K
37	21UEC097	KRUTHIGA T
38	21UEC098	KUMARAN C
39	21UEC099	LAKSHMYNARAYANAN P
40	21UEC100	LINGESHWAR K A
41	21UEC102	LOGESH S
42	21UEC103	MADHAVAN
43	21UEC104	MADHUBALA K
44	**21UEC107**	**MANI GANDANE S**
45	21UEC108	MANISH M
46	21UEC111	MEGA S
47	21UEC114	MITHESH VARMA G
48	21UEC119	MONIKA K
49	21UEC124	NIRMAL K
50	21UEC130	PACHAIYAPPAN S
51	21UEC133	PHAVAN ANNAMALAI N
52	21UEC134	PRANAV R
53	21UEC137	PRAVENKUMAR M
54	21UEC139	PREETHIKA.V
55	21UEC144	RAGUNATH S
56	21UEC148	RITHIGA K
57	21UEC150	ROJASRI A
58	21UEC152	RUPAK B
59	21UEC162	SATHYA NARAYANAN M
60	21UEC164	SERAN S
61	21UEC168	SHAKTHI PRIYA A K
62	**21UEC169**	**SHARAAN V**
63	21UEC173	SIVALOKESH V
64	21UEC179	SOWNDARYA A
65	21UEC181	SRI RAJADURAI S
66	21UEC187	SUGANYA B
67	21UEC193	SWETHA M
68	21UEC201	VARSHA S
69	21UEC203	VIGNESH J
70	21UEC205	VIJAI SRIRAM G
71	21UEC206	VIJAYAGANESH P
72	21UEC211	VISWA M

Gallery of Photographs
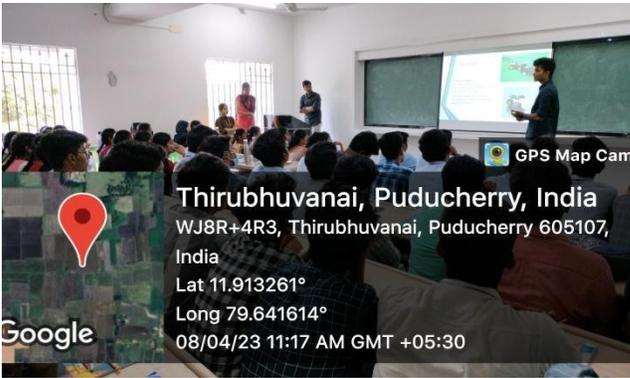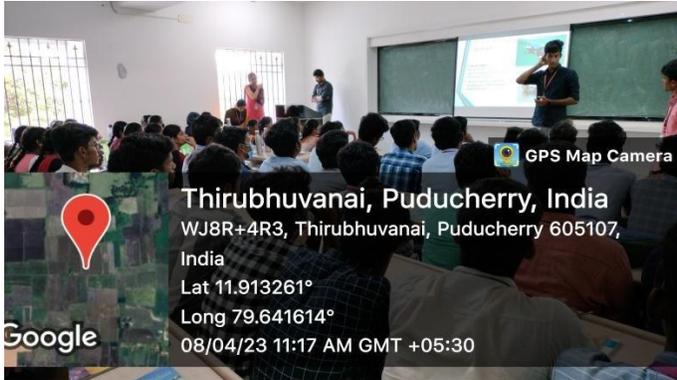
Activity 3 - Introduction to basic robotics

Name of the Activity   : **Introduction to basic robotics**

Name of the Club   : Robotics and Automation Club

Date / Day of Activity   : 15/04/2023 Saturday
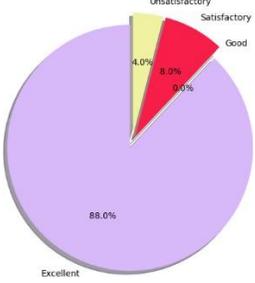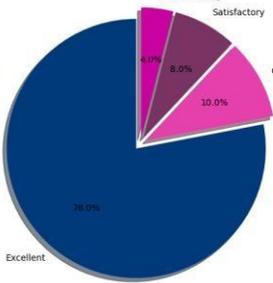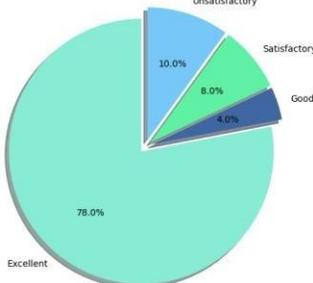
Activity executed   : II Year / IV Sem / A Sec

Robotics is an interdisciplinary field of engineering and science that deals with the **design, construction, operation, and application of robots**. It integrates core concepts from electronics, mechanical engineering, computer science, and control systems to develop intelligent machines capable of performing tasks automatically or semi-automatically. In recent years, robotics has gained significant importance due to its wide applications in industries, healthcare, agriculture, defense, and domestic automation.

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FEEDBACK

Was the class useful and relevant to the topic?	The session was clear and understandable.	How did the club members interact with the students?

Department of Electronics and Communication Engineering
Attendees List
Batch – 2021-2025

Year/ Semester/Sec	:	II / IV / A
Name of the Club	:	Robotic and Automation
No of Students Present	:	69
No of Students Absent	:	02
Absentees Reg No	:	21UEC101, 21UEC160

S.No.	Reg No.	Name
1	21UEC003	ABDUL RAHMAN A
2	21UEC004	ABINAASH T
3	21UEC006	AKASH K
4	21UEC010	ALEXANDAR HARIHARAN S
5	21UEC012	ARAVINDHA KRISHNAN K
6	21UEC016	ARUNKUMAR B
7	21UEC021	BALAJI T
8	21UEC024	BHAANUSHRI R
9	21UEC026	BHARATH M
10	21UEC027	BHARATHRAJ K
11	21UEC028	BHAVANA S
12	21UEC029	BHAVYA P
13	21UEC033	CHANDRU G
14	21UEC038	DHARSHAN S
15	21UEC039	DHARSHINI M R
16	21UEC040	DHARSHINI R
17	21UEC041	DHARWIN RAJ B
18	21UEC044	DHIVAKAR K
19	21UEC046	ELAKSHME DEVI C
20	21UEC048	GAYATHRI S
21	21UEC051	GOKULNATH R
22	21UEC055	GOVIND M
23	21UEC056	GOWTHAM S
24	21UEC066	HARIPRASAD S
25	21UEC077	JANANI R
26	21UEC082	JAYAHSHRI M
27	21UEC085	KAVIPRIYA P
28	21UEC089	KEERTHISHA V
29	21UEC092	KOGUL S
30	**21UEC101**	**LOGESH R**

S.No.	Reg No.	Name
31	21UEC106	MADUMITHAN E
32	21UEC110	MAXIMUS AUGUSTE
33	21UEC113	MIRACULIN ANTO J
34	21UEC115	MOHAMED MASOOD N
35	21UEC116	MOHAMED RIYAIF M
36	21UEC118	MOHANAPRIYAN I
37	21UEC121	MRIDHU MALYA K I
38	21UEC122	NANDHINI M
39	21UEC126	NITHISH S
40	21UEC131	PAVITHRA B
41	21UEC132	PAVITHRAKALA N
42	21UEC136	PRAVEEN S
43	21UEC141	PRETHICKSHA R
44	21UEC143	RAGHAVARDHINI K
45	21UEC146	RANJITHKUMAR K
46	21UEC147	RAVIRAJ P A
47	21UEC149	ROGHAN R
48	21UEC151	RUBERT MAJALA G
49	21UEC154	SANGEETHASREE P
50	21UEC156	SANJAY KANTH K A
51	21UEC157	SANKARI G
52	**21UEC160**	**SARMINI M**
53	21UEC163	SELVAGANAPATHI S
54	21UEC165	SERU MOUNIKA
55	21UEC166	SEYINI N
56	21UEC170	SHIRISH S
57	21UEC172	SINDUJA R
58	21UEC174	SNEGHAA M
59	21UEC175	SNEKHA S
60	21UEC180	SRI PRIYADARSHINI B
61	21UEC183	SRINIVASAN B
62	21UEC188	SUREKA K
63	21UEC189	SURIYA P
64	21UEC191	SUVATHA V
65	21UEC195	THARANI C
66	21UEC200	VANAJA M
67	21UEC202	VIGHNESHWARA B
68	21UEC207	VIJAYPRASATH S
69	21UEC210	VISHWA R
70	21UEC213	YAMUNA V
71	21UEC214	YUVASRI S

Gallery of Photographs

Activity 4 - Vision On Robotics
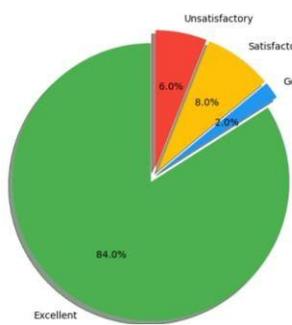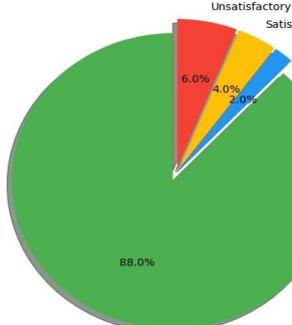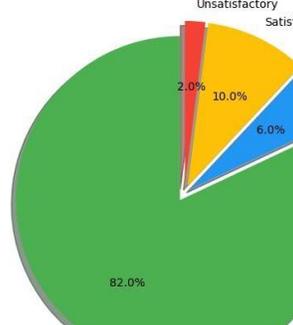
Name of the Activity   : **Vision On Robotics**

Name of the Club   : Robotics and Automation Club

Date / Day of Activity   : 29/04/2023 Saturday

Activity executed   : I year /II Sem /B

The vision of robotics is centered on creating intelligent machines that can assist and enhance human capabilities in various fields. Robotics aims to improve efficiency, accuracy, and safety by automating tasks that are repetitive, hazardous, or require high precision. With rapid advancements in technology, robots are increasingly becoming an integral part of industries, healthcare, agriculture, and everyday life.

Future robotics focuses on the integration of artificial intelligence, advanced sensors, and communication systems to enable robots to perceive their surroundings, make decisions, and adapt to changing environments. Vision-based systems, machine learning, and autonomous control will allow robots to perform complex tasks with minimal human intervention. Human–robot collaboration is another key aspect, where robots work alongside humans to increase productivity and reduce physical strain.

In the educational and societal context, robotics plays a vital role in developing technical skills, creativity, and problem-solving abilities among students. The vision on robotics emphasizes ethical use, safety, and sustainability while encouraging innovation and research. Overall, robotics is expected to shape a smarter, more efficient, and technology-driven future for society.

FEEDBACK

Was the class useful and relevant to the topic?	The session was clear and understandable.	How did the club members interact with the students?

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Department of Electronics and Communication Engineering
Attendees List
Batch – 2022-2023

Year/ Semester/Sec	:	I / II / B
Name of the Club	:	Robotic and Automation
No of Students Present	:	57
No of Students Absent	:	02
Absentees Reg No	:	22UEC069, 22UEC157

S.No.	Reg No.	Name
1	22UEC009	AGILAN C
2	22UEC014	AJAY KUMAR D
3	22UEC015	AJAY V
4	22UEC036	DHANAVEERAN V
5	22UEC055	GUNASEELAN M
6	22UEC056	GURUNARAYANA S
7	22UEC060	HARINI R
8	22UEC064	HARISANTHOSHINI R
9	22UEC065	HARISH DHINAKAR T
10	22UEC066	HARISH K
11	22UEC067	HARISH M
12	22UEC068	HARISH M
13	**22UEC069**	**HARISH M**
14	22UEC070	HARRISH T
15	22UEC071	HARSSHITA R
16	22UEC072	HEMA PRASAAD M
17	22UEC073	HEMANTH K
18	22UEC074	HEMAPRIYA A
19	22UEC078	JAGANNATH R
20	22UEC079	JAGATHEESWARA MOORTHY C
21	22UEC081	JAYANTHAN M
22	22UEC082	JAYASEELAN M
23	22UEC083	JAYASRE S
24	22UEC085	JEAN JULIEN P
25	22UEC086	JEEVA V
26	22UEC087	JEEVANESHVAR S
27	22UEC089	JOE MAXWELL BONIFACE D

S.No.	Reg No.	Name
28	22UEC090	KAARTHIKEYAN R
29	22UEC091	KAMINI S
30	22UEC093	KARTHIK B
31	22UEC094	KARTHIKEYAN G
32	22UEC095	KASHISH U
33	22UEC096	KAVIN M
34	22UEC100	KEERTHIVASAN K
35	22UEC101	KIREN V
36	22UEC102	KIRUBAKARAN A
37	22UEC106	KRISHNAMURTHY M
38	22UEC107	KRITHA L M
39	22UEC108	KRITHIKA S
40	22UEC110	LEETHICA S
41	22UEC111	LOGESHVAR C
42	22UEC115	MANOJKUMAR K
43	22UEC116	MANOJKUMAR T
44	22UEC119	MERLINE JENIFER R
45	22UEC131	NAVEEN VELAYUDHAM K
46	22UEC139	PAVITHRAN K
47	22UEC151	PRIYADHARSHINI V S
48	22UEC155	RAGURAM N
49	**22UEC157**	**RAJASRI P**
50	22UEC164	ROHITH K
51	22UEC195	SRINIVAS S
52	22UEC202	SURENDIRAN S
53	22UEC208	THINESH V
54	22UEC211	VENKATESH E
55	22UEC217	VINODH R
56	22UEC218	VINOTHINI S
57	22UEC224	VISHNU K
58	22UEC234	YUVARAJ K
59	22UEC235	YUVASHAKKTHI K

Gallery of Photographs
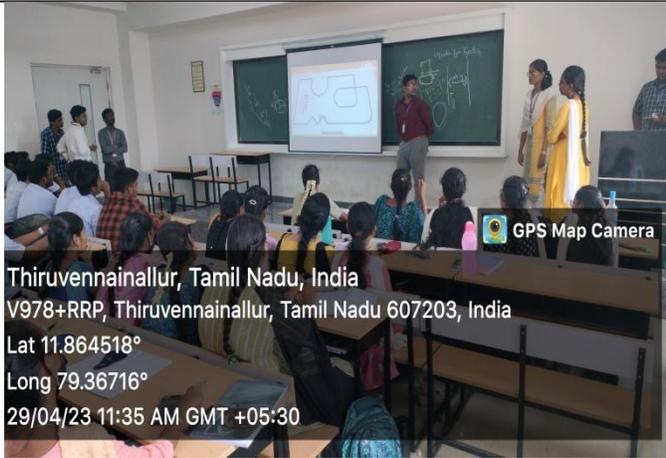
Activity 5 - Modern Designing of Bot
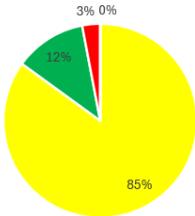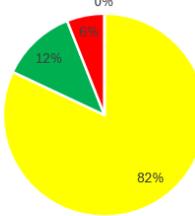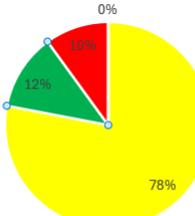
Name of the Activity : **Modern Designing of Bot**

Name of the Club : Robotics and Automation Club

Date / Day of Activity : 22/05/2023 Saturday

Activity executed for : II Year / IV Sem / A sec

Modern bot design focuses on creating intelligent, efficient, and adaptable robotic systems that can perform complex tasks with high accuracy. The design process integrates mechanical structure, electronics, embedded systems, and software to ensure optimal performance. Advanced tools such as computer-aided design (CAD), simulation software, and rapid prototyping techniques like 3D printing are widely used to develop lightweight, robust, and ergonomic robot structures.

A key aspect of modern bot design is the incorporation of artificial intelligence, sensors, and control algorithms. Sensors such as cameras, ultrasonic sensors, LiDAR, and IMUs enable bots to perceive their environment, while microcontrollers and processors handle data processing and decision-making. Machine learning and vision systems allow bots to recognize objects, navigate autonomously, and adapt to dynamic conditions, making them suitable for applications such as industrial automation, healthcare, and service robotics.

Modern bot design also emphasizes safety, energy efficiency, and human–robot interaction. Collaborative robots are designed with built-in safety features to work alongside humans without causing harm. Power-efficient components and optimized control strategies help extend battery life and reduce energy consumption. Overall, modern designing of bots aims to develop smart, reliable, and user-friendly robotic systems that meet the evolving demands of technology and society.

FEEDBACK

Was the class useful and relevant to the topic?	The session was clear and understandable.	How did the club members interact with the students?

SRI MANAKULA VINAYAGAR ENGINEERING COLLEGE
(An Autonomous Institution)
Puducherry - 605 107

Department of Electronics and Communication Engineering
Attendees List
Batch – 2021-2025

Year/ Semester/Sec	:	II / IV / A
Name of the Club	:	Robotic and Automation
No of Students Present	:	67
No of Students Absent	:	04
Absentees Reg No	:	21UEC004, 21UEC012, 21UEC146, 21UEC188

S.No.	Reg No.	Name
1	21UEC003	ABDUL RAHMAN A
2	**21UEC004**	**ABINAASH T**
3	21UEC006	AKASH K
4	21UEC010	ALEXANDAR HARIHARAN S
5	**21UEC012**	**ARAVINDHA KRISHNAN K**
6	21UEC016	ARUNKUMAR B
7	21UEC021	BALAJI T
8	21UEC024	BHAANUSHRI R
9	21UEC026	BHARATH M
10	21UEC027	BHARATHRAJ K
11	21UEC028	BHAVANA S
12	21UEC029	BHAVYA P
13	21UEC033	CHANDRU G
14	21UEC038	DHARSHAN S
15	21UEC039	DHARSHINI M R
16	21UEC040	DHARSHINI R
17	21UEC041	DHARWIN RAJ B
18	21UEC044	DHIVAKAR K
19	21UEC046	ELAKSHME DEVI C
20	21UEC048	GAYATHRI S
21	21UEC051	GOKULNATH R
22	21UEC055	GOVIND M
23	21UEC056	GOWTHAM S
24	21UEC066	HARIPRASAD S
25	21UEC077	JANANI R
26	21UEC082	JAYAHSHRI M
27	21UEC085	KAVIPRIYA P
28	21UEC089	KEERTHISHA V
29	21UEC092	KOGUL S
30	21UEC101	LOGESH R

S.No.	Reg No.	Name
31	21UEC106	MADUMITHAN E
32	21UEC110	MAXIMUS AUGUSTE
33	21UEC113	MIRACULIN ANTO J
34	21UEC115	MOHAMED MASOOD N
35	21UEC116	MOHAMED RIYAIF M
36	21UEC118	MOHANAPRIYAN I
37	21UEC121	MRIDHU MALYA K I
38	21UEC122	NANDHINI M
39	21UEC126	NITHISH S
40	21UEC131	PAVITHRA B
41	21UEC132	PAVITHRAKALA N
42	21UEC136	PRAVEEN S
43	21UEC141	PRETHICKSHA R
44	21UEC143	RAGHAVARDHINI K
45	**21UEC146**	**RANJITHKUMAR K**
46	21UEC147	RAVIRAJ P A
47	21UEC149	ROGHAN R
48	21UEC151	RUBERT MAJALA G
49	21UEC154	SANGEETHASREE P
50	21UEC156	SANJAY KANTH K A
51	21UEC157	SANKARI G
52	21UEC160	SARMINI M
53	21UEC163	SELVAGANAPATHI S
54	21UEC165	SERU MOUNIKA
55	21UEC166	SEYINI N
56	21UEC170	SHIRISH S
57	21UEC172	SINDUJA R
58	21UEC174	SNEGHAA M
59	21UEC175	SNEKHA S
60	21UEC180	SRI PRIYADARSHINI B
61	21UEC183	SRINIVASAN B
62	**21UEC188**	**SUREKA K**
63	21UEC189	SURIYA P
64	21UEC191	SUVATHA V
65	21UEC195	THARANI C
66	21UEC200	VANAJA M
67	21UEC202	VIGHNESHWARA B
68	21UEC207	VIJAYPRASATH S
69	21UEC210	VISHWA R
70	21UEC213	YAMUNA V
71	21UEC214	YUVASRI S

Activity 6 - Designing of Bot

Name of the Activity   : **Designing of Bot**

Name of the Club   : Robotics and Automation Club

Date / Day of Activity   : 27/05/2023 Saturday

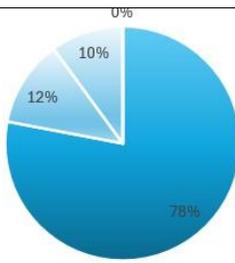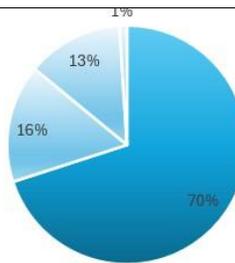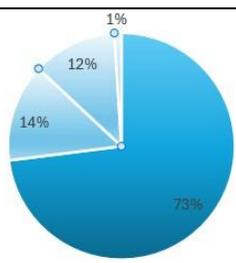Activity executed by   : Mr.A.Arunan , EX-OR Robotics, Puducherry

Activity executed for   : II/IV/A&B

The session on *Designing of Bot* conducted by **Mr. A. Arunan** focused on introducing students to the fundamentals of robotic system design. He explained the step-by-step approach involved in bot development, starting from understanding the application requirement to selecting appropriate mechanical structures, electronic components, and control units. The importance of proper planning and design analysis before implementation was clearly emphasized.

Mr. Arunan elaborated on the role of sensors, actuators, microcontrollers, and power management in building an efficient bot. He discussed how modern tools such as CAD software, simulation platforms, and embedded programming help in improving design accuracy and performance. Practical examples and real-time demonstrations helped students understand how theoretical concepts are applied in real-world robotic systems.

The session also highlighted safety considerations, energy efficiency, and troubleshooting techniques in bot design. Mr. Arunan encouraged students to innovate and experiment with new ideas while following ethical and safety standards. Overall, the session was highly informative and inspired students to develop strong technical skills and confidence in designing modern robotic systems.

FEEDBACK

Was the class useful and relevant to the topic?	The session was clear and understandable.	How did the club members interact with the students?

SRI MANAKULA VINAYAGAR ENGINEERING COLLEGE
(An Autonomous Institution)
Puducherry - 605 107

Department of Electronics and Communication Engineering
Attendees List
Batch – 2021-2025

Year/ Semester/Sec	:	II / IV / A
Name of the Club	:	Robotic and Automation
No of Students Present	:	134
No of Students Absent	:	08
Absentees Reg No	:	**21UEC044, 21UEC066, 21UEC126, 21UEC156, 21UEC195, 21UEC118, 21UEC172, 21UEC210**

S.No.	Reg No.	Name
1	21UEC003	ABDUL RAHMAN A
2	21UEC004	ABINAASH T
3	21UEC006	AKASH K
4	21UEC010	ALEXANDAR HARIHARAN S
5	21UEC012	ARAVINDHA KRISHNAN K
6	21UEC016	ARUNKUMAR B
7	21UEC021	BALAJI T
8	21UEC024	BHAANUSHRI R
9	21UEC026	BHARATH M
10	21UEC027	BHARATHRAJ K
11	21UEC028	BHAVANA S
12	21UEC029	BHAVYA P
13	21UEC033	CHANDRU G
14	21UEC038	DHARSHAN S
15	21UEC039	DHARSHINI M R
16	21UEC040	DHARSHINI R
17	21UEC041	DHARWIN RAJ B
18	**21UEC044**	**DHIVAKAR K**
19	21UEC046	ELAKSHME DEVI C
20	21UEC048	GAYATHRI S
21	21UEC051	GOKULNATH R
22	21UEC055	GOVIND M
23	21UEC056	GOWTHAM S
24	**21UEC066**	**HARIPRASAD S**
25	21UEC077	JANANI R
26	21UEC082	JAYAHSHRI M
27	21UEC085	KAVIPRIYA P
28	21UEC089	KEERTHISHA V
29	21UEC092	KOGUL S

S.No.	Reg No.	Name
30	21UEC101	LOGESH R
31	21UEC106	MADUMITHAN E
32	21UEC110	MAXIMUS AUGUSTE
33	21UEC113	MIRACULIN ANTO J
34	21UEC115	MOHAMED MASOOD N
35	21UEC116	MOHAMED RIYAIF M
36	21UEC118	MOHANAPRIYAN I
37	21UEC121	MRIDHU MALYA K I
38	21UEC122	NANDHINI M
39	**21UEC126**	**NITHISH S**
40	21UEC131	PAVITHRA B
41	21UEC132	PAVITHRAKALA N
42	21UEC136	PRAVEEN S
43	21UEC141	PRETHICKSHA R
44	21UEC143	RAGHAVARDHINI K
45	21UEC146	RANJITHKUMAR K
46	21UEC147	RAVIRAJ P A
47	21UEC149	ROGHAN R
48	21UEC151	RUBERT MAJALA G
49	21UEC154	SANGEETHASREE P
50	**21UEC156**	**SANJAY KANTH K A**
51	21UEC157	SANKARI G
52	21UEC160	SARMINI M
53	21UEC163	SELVAGANAPATHI S
54	21UEC165	SERU MOUNIKA
55	21UEC166	SEYINI N
56	21UEC170	SHIRISH S
57	21UEC172	SINDUJA R
58	21UEC174	SNEGHAA M
59	21UEC175	SNEKHA S
60	21UEC180	SRI PRIYADARSHINI B
61	21UEC183	SRINIVASAN B
62	21UEC188	SUREKA K
63	21UEC189	SURIYA P
64	21UEC191	SUVATHA V
65	**21UEC195**	**THARANI C**
66	21UEC200	VANAJA M
67	21UEC202	VIGHNESHWARA B
68	21UEC207	VIJAYPRASATH S
69	21UEC210	VISHWA R
70	21UEC213	YAMUNA V
71	21UEC214	YUVASRI S

Year/ Semester/Sec	:	II / IV / B
Name of the Club	:	Robotic and Automation

S.No.	Reg No.	Name
1	21UEC003	ABDUL RAHMAN A
2	21UEC004	ABINAASH T
3	21UEC006	AKASH K
4	21UEC010	ALEXANDAR HARIHARAN S
5	21UEC012	ARAVINDHA KRISHNAN K
6	21UEC016	ARUNKUMAR B
7	21UEC021	BALAJI T
8	21UEC024	BHAANUSHRI R
9	21UEC026	BHARATH M
10	21UEC027	BHARATHRAJ K
11	21UEC028	BHAVANA S
12	21UEC029	BHAVYA P
13	21UEC033	CHANDRU G
14	21UEC038	DHARSHAN S
15	21UEC039	DHARSHINI M R
16	21UEC040	DHARSHINI R
17	21UEC041	DHARWIN RAJ B
18	21UEC044	DHIVAKAR K
19	21UEC046	ELAKSHME DEVI C
20	21UEC048	GAYATHRI S
21	21UEC051	GOKULNATH R
22	21UEC055	GOVIND M
23	21UEC056	GOWTHAM S
24	21UEC066	HARIPRASAD S
25	21UEC077	JANANI R
26	21UEC082	JAYAHSHRI M
27	21UEC085	KAVIPRIYA P
28	21UEC089	KEERTHISHA V
29	21UEC092	KOGUL S
30	21UEC101	LOGESH R
31	21UEC106	MADUMITHAN E
32	21UEC110	MAXIMUS AUGUSTE
33	21UEC113	MIRACULIN ANTO J
34	21UEC115	MOHAMED MASOOD N
35	21UEC116	MOHAMED RIYAIF M
36	**21UEC118**	**MOHANAPRIYAN I**
37	21UEC121	MRIDHU MALYA K I
38	21UEC122	NANDHINI M
39	21UEC126	NITHISH S
40	21UEC131	PAVITHRA B

S.No.	Reg No.	Name
41	21UEC132	PAVITHRAKALA N
42	21UEC136	PRAVEEN S
43	21UEC141	PRETHICKSHA R
44	21UEC143	RAGHAVARDHINI K
45	21UEC146	RANJITHKUMAR K
46	21UEC147	RAVIRAJ P A
47	21UEC149	ROGHAN R
48	21UEC151	RUBERT MAJALA G
49	21UEC154	SANGEETHASREE P
50	21UEC156	SANJAY KANTH K A
51	21UEC157	SANKARI G
52	21UEC160	SARMINI M
53	21UEC163	SELVAGANAPATHI S
54	21UEC165	SERU MOUNIKA
55	21UEC166	SEYINI N
56	21UEC170	SHIRISH S
57	**21UEC172**	**SINDUJA R**
58	21UEC174	SNEGHAA M
59	21UEC175	SNEKHA S
60	21UEC180	SRI PRIYADARSHINI B
61	21UEC183	SRINIVASAN B
62	21UEC188	SUREKA K
63	21UEC189	SURIYA P
64	21UEC191	SUVATHA V
65	21UEC195	THARANI C
66	21UEC200	VANAJA M
67	21UEC202	VIGHNESHWARA B
68	21UEC207	VIJAYPRASATH S
69	**21UEC210**	**VISHWA R**
70	21UEC213	YAMUNA V
71	21UEC214	YUVASRI S

Gallery of Photographs

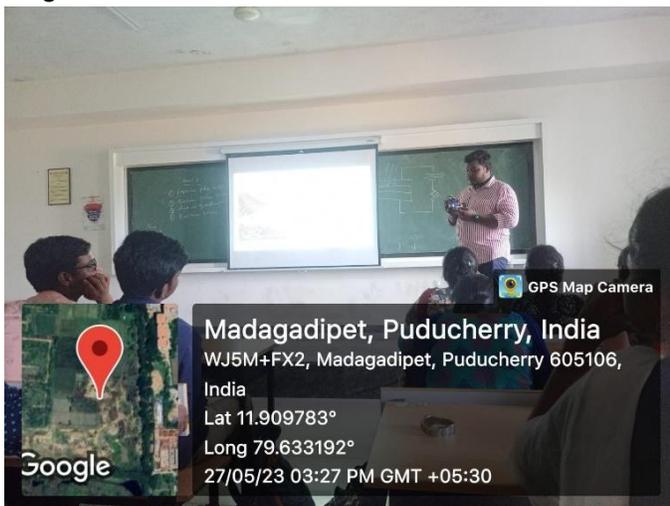| Members delivering about the Bot Components	Members explaining about Construction
Members explaining about Gameplay	Interaction between the members and students
Members explaining about the Rules and Regulations	Members clarifying about the rules of the event

Activity 7 - Modern Designing of Bot

Name of the Activity   : **Modern Designing of Bot**

Name of the Club   : Robotics and Automation Club

Date / Day of Activity   : 03/06/2023 Saturday

Activity executed (Yr. /Sem/ Sec)   : I year /II Sem /C

Modern bot design focuses on creating intelligent, efficient, and adaptable robotic systems that can perform complex tasks with high accuracy. The design process integrates mechanical structure, electronics, embedded systems, and software to ensure optimal performance. Advanced tools such as computer-aided design (CAD), simulation software, and rapid prototyping techniques like 3D printing are widely used to develop lightweight, robust, and ergonomic robot structures.

A key aspect of modern bot design is the incorporation of artificial intelligence, sensors, and control algorithms. Sensors such as cameras, ultrasonic sensors, LiDAR, and IMUs enable bots to perceive their environment, while microcontrollers and processors handle data processing and decision-making. Machine learning and vision systems allow bots to recognize objects, navigate autonomously, and adapt to dynamic conditions, making them suitable for applications such as industrial automation, healthcare, and service robotics.

Modern bot design also emphasizes safety, energy efficiency, and human–robot interaction. Collaborative robots are designed with built-in safety features to work alongside humans without causing harm. Power-efficient components and optimized control strategies help extend battery life and reduce energy consumption. Overall, modern designing of bots aims to develop smart, reliable, and user-friendly robotic systems that meet the evolving demands of technology and society.

FEEDBACK

Was the class useful and relevant to the topic?	The session was clear and understandable.	How did the club members interact with the students?

Pie chart 1: 73% Excellent, 14% Good, 12% Satisfactory, 1% Un satisfactory

Pie chart 2: 70% Excellent, 18% Good, 10% Satisfactory, 2% Un satisfactory

Pie chart 3: 80% Excellent, 18% Good, 0% Satisfactory, 0% Un satisfactory

SRI MANAKULA VINAYAGAR ENGINEERING COLLEGE
(An Autonomous Institution)
Puducherry - 605 107

Department of Electronics and Communication Engineering
Attendees List
Batch – 2023-2024

Year/ Semester/Sec	:	I / II / C
Name of the Club	:	Robotic and Automation
No of Students Present	:	54
No of Students Absent	:	04
Absentees Reg No	:	22UEC129, **22UEC148, 22UEC149, 22UEC198**

S.No.	Reg No.	Name
1	22UEC017	AMUDHAVALLI S
2	22UEC019	ANANTANARAYANAN R
3	22UEC026	ASWIN RAJ S
4	22UEC076	ILAKKIYAN
5	22UEC098	KEERTHINIVASAN D
6	22UEC104	KOUSALYA P
7	22UEC113	MAGARAJA GANAPATHY B
8	22UEC120	MOHAMED SAJID M
9	22UEC122	MONICA MUTHU P
10	22UEC123	MONICA S
11	22UEC125	MUGESH M
12	22UEC127	MUTHUSELVAN K
13	**22UEC129**	**NARAYANAN G**
14	22UEC130	NAUFAL AHAMED M
15	22UEC132	NAVEENKAMAL C
16	22UEC133	NAVIN
17	22UEC135	NITHIN M
18	22UEC136	NITHYALAKSHMI S
19	22UEC138	PAVITHRA K
20	22UEC140	POOJASRI P
21	22UEC142	PRATIBHA P
22	22UEC144	PRAVEEN D
23	22UEC145	PRAVEEN KUMAR B
24	22UEC146	PRAVEEN KUMAR M
25	22UEC147	PRAVEEN P R
26	**22UEC148**	**PRAVIN R**
27	**22UEC149**	**PRIYADARSHINI S T**

S.No.	Reg No.	Name
28	22UEC150	PRIYADHARSHINI O
29	22UEC152	RAAKESH R
30	22UEC153	RAGHUL R
31	22UEC154	RAGUNATHAN M
32	22UEC158	RAM KUMAR A
33	22UEC159	RAMYASRI T
34	22UEC160	RATHIMEENA B
35	22UEC161	RAVI VARMA M
36	22UEC162	RIDUVARSHINI D
37	22UEC163	RITHESS M A
38	22UEC165	ROHITH KISHORE P C
39	22UEC166	RUBIKA SAKTHI B
40	22UEC168	SABTHA SREE G P
41	22UEC169	SACHINDELWA R
42	22UEC170	SAHITHYA T S
43	22UEC178	SARATHIKANNAN A
44	22UEC180	SARAVANAN S
45	22UEC181	SARAVANAN T
46	22UEC183	SATHISH NARAYAN S
47	22UEC187	SHIVANI S
48	22UEC191	SNEGA S
49	22UEC193	SRI LAKSHMI V
50	22UEC196	SUBHIKSHA K
51	**22UEC198**	**SUGANTHE M**
52	22UEC199	SUJITHA R
53	22UEC205	THANIGAIVEL V
54	22UEC210	VELKRISHNARAJA R
55	22UEC216	VILENDIRAN S
56	22UEC227	VISHVAJI T
57	22UEC229	VISVANESAN S
58	22UEC233	YUVANRAJ M B

Gallery of Photographs

Members delivering about the Bot Components	Members explaining about Construction
Members explaining about Gameplay	Interaction between the members and students