



ST FRANCIS DE SALES COLLEGE

Permanently Affiliated to Bangalore University

Electronics City, Bengaluru - 100

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Report on Two day Workshop on Research and Development in Robotics

Date: 25- 26th September 2019

Venue: Electronics lab

Resource Persons:

- Dr. Sanjeev, Vijaya College
- Dr. Nandan, Jain University
- Prof. Smrutee Markhedkar

A two day workshop on robotics was conducted by St. Francis de sales college on 25-26 September 2019. The workshop was intended to make the participants to understand the current developments in Robotics research. There were 25 participants from various colleges and institutions. At the conclusion of the workshop, students are tested on their knowledge, and top scorers are awarded with certificate and memento.

The main objective of the training programme was to equip the under graduate students to explain the basic principles of robotics through a working model designing.. All of these concepts and contents were explained to the participants through 4 technical sessions in two days with eminent and experienced resource persons.

The facilitators of the workshop were Mr. Ahmed Sheikh, Lab instructor and Ms. Smrutee Markhedkar, Asst. Professor & Head, Department of Science. The working model was later used in the inaugural ceremony of intercollegiate culture event inaugural session.

Day One: 25-09-2019

Inaugural session

The two day workshop started with a short inaugural session. The inaugural session commenced at 09.30 am. Prof. Smrutee Markhedkar briefed the profile of the chief guest and resource person for day 1 (Technical session 1 and 2).



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Dr. Sanjeev S., Head, Department of Electronics, Vijaya College, Bangalore. The resource person runs a leading institute for Electronics. Since 10 years he has been providing training to the students in various institution and colleges in and around Bangalore.

Fr. Dr. Roy, Principal and Fr. Jijo Jose, Vice Principal were also present in the inaugural session. Ms. Maya Mathew gave an overview of the two day workshop. Prof. Roshini Anne Koshy delivered the vote of thanks. Later on the resource person took over the session.

Technical session 1:

The session started immediately after the inaugural session. Dr. Sanjeev took over the session. The resource person gave a detailed introduction to Robitics, how it is made, its different applications and its types. He gave very clear idea regarding the board styles and components like motor, microprocessor, sensors, rod, and remote with IR sensor. The session followed a tea break.

Dr. Sanjeev continued with the post tea break session. Expected output was explained to students. And explanation on components required. The model consists of motor, microprocessor, sensors, rod, and remote with IR sensor.

Technical session 2

The second session of day of the workshop started after lunch. This session was a hands on practical session. The following aspects in the development of a robotic working model were explained to the students as follows:

- Detailing on programming in controller for rotating clockwise and anti-clockwise movement
- Hardware construction procedures

The participants were given an assignment to write and come the steps involved in the development of robotics and submit it on the next day. At the end of the session, Prof. Maya Mathew, Asst. Professor, Department of Science thanked and felicitated Dr. Sanjeev. Later on, adjourned for lunch break.

Day 2: 26-09-2019

Technical session 3

The second day started with session 3 . The introduction of the resource person was done by Desalite Athira Babu. Dr. Nandan, Assistant Professor at Jain University. The resource



person is an experienced with and is an expert in the Robotics design and application. Dr. Nandan was welcomed to take over the session. The resource person explained the step by step designing process. Later on, the session winded up and took a tea break and continued with hands on training.

The following aspects in the development of a robotic working model were explained to the students as follows:

- Step1:** Expected output was explained to students
- Step2:** Explanation on components required. The model consists of motor, microprocessor, sensors, rod, and remote with IR sensor
- Step3:** Detailing on programming in controller for rotating clockwise and anti-clockwise movement
- Step4:** Hardware construction procedures
- Step5:** Explanation on Interfacing and implementation
- Step6:** Output

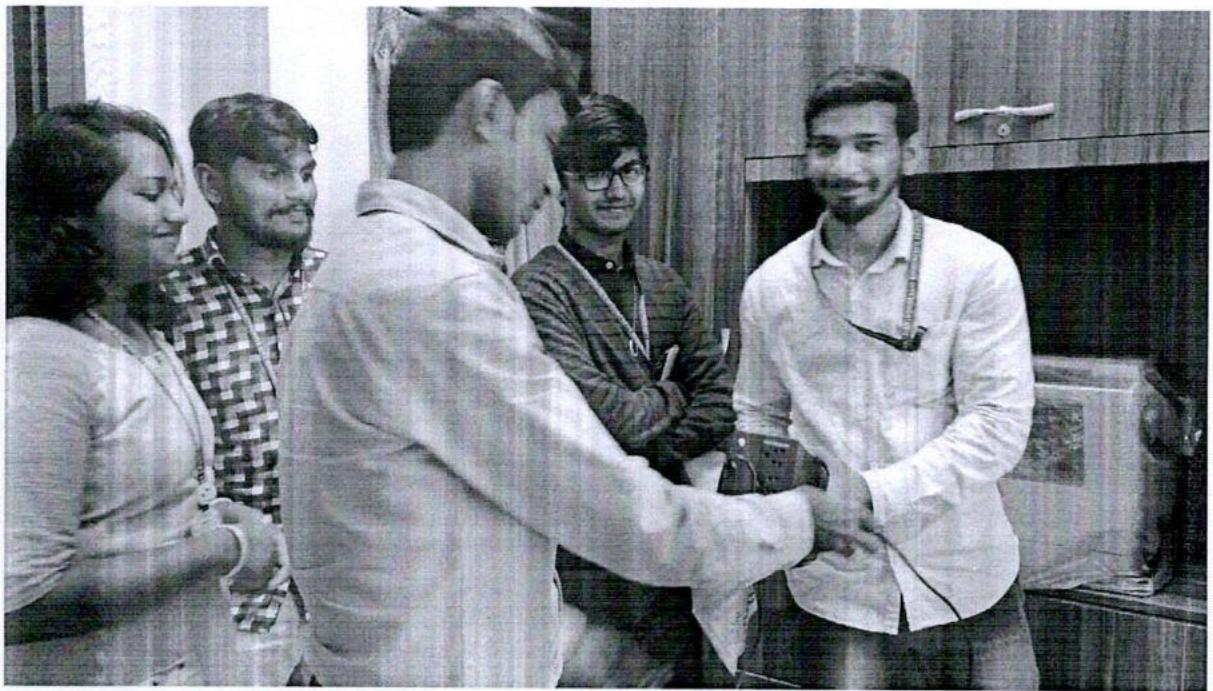
Technical session 4

Technical session continued with Robotics hardware hands on training. The post lunch session was coordinated by Prof. Smrutee Markhedkar, Asst. Professor, Department of Science. A test based on the sessions conducted was given and validation of the sessions was done.

Valedictory Session

The technical session 4 was immediately followed by valedictory session in which the certificates for the participants were distributed and the concluding remarks were made. The resource persons were felicitated and thanked. The feedback from the participants was collected.





List of Participants

| Sl. No | Name of the Participant | Semester & Course |
|--------|--------------------------------|-------------------|
| 1 | AMRUTHA R | VI SEM BSC (MEC) |
| 2 | ATHIRA BABU | VI SEM BSC (MEC) |
| 3 | CHIDAMBARAM BHARATHI J P | VI SEM BSC (MEC) |
| 4 | DEEPAK NANDA D | VI SEM BSC (MEC) |
| 5 | GANDHI TS | VI SEM BSC (MEC) |
| 6 | GEETHA R | VI SEM BSC (MEC) |
| 7 | JEEVAGAN M | VI SEM BSC (MEC) |
| 8 | JINSHA SUNNY | VI SEM BSC (MEC) |
| 9 | JOSHUADAN V | VI SEM BSC (MEC) |
| 10 | MAMATHARANI T | VI SEM BSC (MEC) |
| 11 | PRATHIMA J | VI SEM BSC (MEC) |
| 12 | RAJESH S | VI SEM BSC (MEC) |
| 13 | ROSHNI G | VI SEM BSC (MEC) |
| 14 | SNEHA K S | VI SEM BSC (MEC) |
| 15 | SUSHMA N S | VI SEM BSC (MEC) |
| 16 | THIRU MOORTHY K | VI SEM BSC (MEC) |
| 17 | VENU P | VI SEM BSC (MEC) |
| 18 | UTTAM KUMAR | VI SEM BSC (MEC) |
| 19 | MOIRANGTHEM ARCHANA CHANU | VI SEM BSC (MEC) |
| 20 | TANUJA | VI SEM BSC (MEC) |
| 21 | NADIKATTU SRINUVASULU REDDY | VI SEM BSC (MEC) |
| 22 | VAISHNAVI JORI | VI SEM BSC (MEC) |
| 23 | SHALINI R | VI SEM BSC (MEC) |



| Sl. No | Name of the Participant | Semester & Course |
|-----------|-------------------------|-------------------|
| 24 | JEEVAN G | VI SEM BSC (MEC) |
| 25 | SAMYUKTH M | VI SEM BSC (MEC) |
| 26 | NAYANASHREE B | VI SEM BSC (MEC) |
| 27 | NADIYA S. | VI SEM BSC (MEC) |



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