

RAIC



**SRI VENKATESWARA COLLEGE
OF ENGINEERING
DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING**

ROBOTICS AND ARTIFICIAL INTELLIGENCE CLUB

PRESENTS

**LINE FOLLOWER
PROGRAMMING
EVENT**



(EXCLUSIVELY FOR RAIC CLUB STUDENTS ONLY!!)



11.08.2020 - 15.08.2020

THINK IT BUILD IT WIN IT !!

CHIEF PATRON

Dr.M.SIVANANDHAM, PROFESSOR, SECRETARY, SVEHT
PATRON

Dr.S.GANESH VAIDYANATHAN, PRINCIPAL, SVCE
CONVENER

Dr.S.MUTHUKUMAR, PROFESSOR, HOD/ECE

CO-ORDINATORS

Ms.T.J.JEYAPRABHA, ASSISTANT PROFESSOR, ECE

Ms.D.Menaka, ASSISTANT PROFESSOR, ECE

STUDENT CO-ORDINATORS

SUDESH KUMAR S
(PRESIDENT, RAIC)

SANDEEP PAI K
(SECRETARY, RAIC)

SUSHMA K
(JOINT SECRETARY, RAIC)

MADHUMITHA V
(EXECUTIVE MEMBER, RAIC)

RAHUL B
(EXECUTIVE MEMBER, RAIC)



RAIC

Department Of Electronics and Communication Engineering

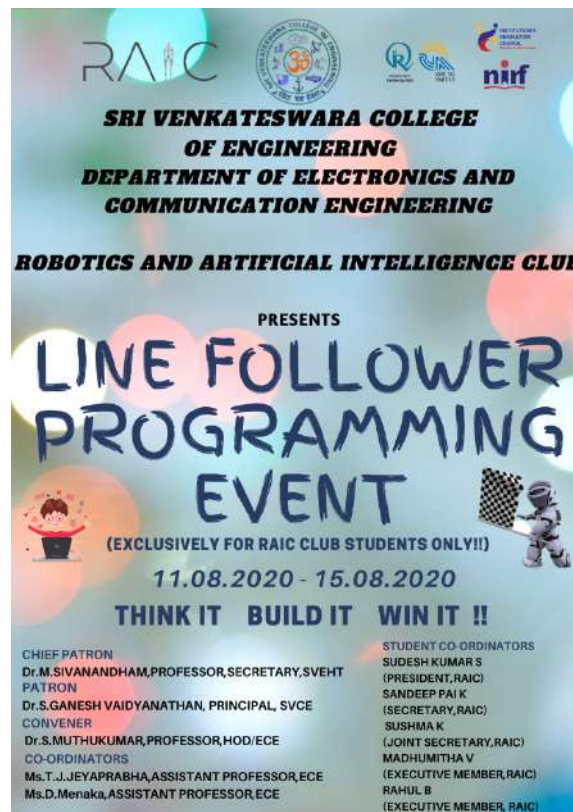
in association with

Robotics and Artificial Intelligence Club

Report of The Complex Line Follower Programming Event

(11th - 15th August, 2020)

The Robotics and Artificial Intelligence club conducted the **COMPLEX LINE FOLLOWER PROGRAMMING EVENT** exclusively for the RAIC members from **11th August to 15th August, 2020**. The problem statement was posted around 8 am in the morning on **11th August, 2020** in the #homework channel in Slack. The members participated as teams of four or three and were guided by their respective mentors .



(Official Poster)

The problem statement for the event is as follows :

COMPLEX LINE FOLLOWER PROGRAMMING EVENT

1. Using a 5 - Array IR Sensor which outputs a **zero (0)** on a black line and outputs a **one (1)** on a white surface, come up with some logic to make the line follower robot trace the track with more precision and accuracy. The logic should be submitted in the form of a table. Google Spreadsheet is much preferred. Before the submission date, Team leads must share the link of your google spreadsheet to your mentors. The Spreadsheet must contain all the conditions and what turn or what your robot is going to do. (Say for e.g. you can mention as “Robot must turn left” or “Robot goes forward” or “Robot makes a small left”)

Left most sensor is **L2**, One to the left of Centre sensor is **L1**, Centre sensor is **C**, One to the right of centre sensor is **R1** and the right most sensor is **R2**.

Note :- Keenly watch the videos which will be shared in #homework channel. The tracks shown in these videos can be taken as reference.

2. After coming up the logic for the Complex Line Follower Robot, program the conditions in Arduino IDE and send the complete code before the submission date.

Note :- **DO NOT COPY CODE FROM ONLINE RESOURCES. PLAGIARISM IS STRICTLY PROHIBITED. YOUR MARKS WILL BE REDUCED IF YOUR CODE IS COPIED FROM ONLINE RESOURCES.**

Submission Date :

Submit your Arduino code which must be saved as

Team_Name.ino on or before **Saturday, 15th August, 8 PM.**

Mode of Submission :

Submit your assignment to your corresponding Team Mentors through Personal Chat in Slack. **DO NOT SEND IN GROUPS OR IN THE #Homework CHANNEL.**

The participants were introduced to the **5 Array IR Sensor** a day before the competition and were enlightened about the logic of the working of the sensor. Along with the question, videos of various line follower competitions attended by the mentors of RAIC were also shared to give the teams a wider idea of how the track is laid and how to tackle various turns like circle, squares, acute turns etc. The teams were asked to submit the logic behind the code in a tabular format along with the Arduino code. The teams were evaluated by a panel of six mentors (**Mr. Sudesh Kumar S, Mr. S. Prem Raj, Ms. Madhumitha S, Mr. Vishnusai R, Ms. Monica Ravikumar**) based on their accuracy towards the logic, readability and the feasibility conditions. Their progress was checked on **13th August, 2020** and received good feedback from them. A session was held two days after the contest on the **Complete Walkthrough of the Line Follower code** and the participants were clearly explained about the code and their doubts were clarified. In addition to that the participants were also taught on "**How to do speed control using LDR**" and "**How to detect objects using Ultrasonic Sensor**". The students also shared their experience on this great learning. The winners and runners were announced on **23rd August, 2020** through Slack.



(Winners of the event)

1. **Akilesh Kumar B, Second Year, ECE.**
2. **Kenwin Patrick A, Second Year, ECE.**
3. **Mahalakshmi M M, Second Year, ECE.**
4. **Hari Prasanna T R, Second Year, ECE.**



(Runners of the event)

- 1. Kathirvel R, Second Year, ECE.**
- 2. Sivasubramanian R, Second Year, ECE.**
- 3. Pon Sai Raam V, Second Year, ECE.**
- 4. Karthik Rajagopal, Second Year, ECE.**

Chief Patron :

Dr. S. Ganesh Vaidyanathan, Principal.

Convener :

Dr. S. Muthukumar, Professor & HOD, ECE.

Co - Ordinators :

Ms. T. J. Jeyaprabha, Assistant Professor, ECE.

Ms. D. Menaka, Assistant Professor , ECE.

Office Bearers -RAIC (2020-2021) :

- 1.President : Sudesh Kumar S, Final Year, ECE.
- 2.Secretary : Sandeep Pai K, Final Year, ECE.
- 3.Joint - Secretary: Sushma K, Final Year, ECE.
- 4.Executive Member V. Madhumitha, Third Year, ECE.
Rahul B, Third Year, ECE

RAIC Mentors (2020-2021):

Mr. Sudesh Kumar S, Final Year, ECE.

Mr. S. Prem Raj, Final Year, ECE.

Ms. Madhumitha S, Third Year, ECE.

Mr. Vishnusai R, Third Year, ECE.

Ms. Monica Ravikumar, Third Year, ECE.

Ms. Harshithah, Third Year, ECE.


Syllabus framing committee :

1. Co - Founder Of RAIC and Alumni of SVCE - Mr. Sandeep Kumar Ramani, MS, ECE, UW Madison.

2. Co - Founder and President Of RAIC - Mr. Sudesh Kumar .S, Final year, ECE.



EVENT COORDINATOR



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MEMBER

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190701051	KENWIN PATRICK A
190701052	KISHORE M
190701053	KISHORE K
190701060	MAHALAKSHMI M M
190701074	PON SAI RAAM V
190701075	PRABUMANOJ S J
190701076	PRADEEP S
190701077	PRANAV S
190701078	PRAPTI D
190701079	PRASAD E
190701080	PRASSANNA GANESAN
190701081	PRITHA R
190701082	RADHA G
190701083	RAGHU YOGESH
190701084	RAGUL T
190701085	RAJESH KUMAR R
190701088	REVILLA JYOSTHNA
190701089	RITHIKAA K
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190701008	APARNA S
190701059	MADHURIMA KANNAN
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190701086	RAKESH VELAVALURI
190701090	SAALINI D
190701091	SAHANA M
190701092	SAHITHYAN S
190701093	SAKTHI M
190701094	SANGEETH KANNA P
190701095	SANKARA NARAYANAN B
190701096	SANTHOSH KUMAR S
190701097	SATHYA PRIYA S
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190701122	VAISHNAVI J
190701123	VARSHINI S

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