



National Education Society

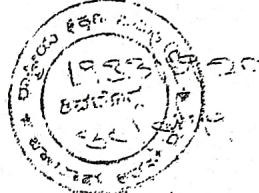
Jawaharlal Nehru National College of Engineering, Navule,
Shivamogga-577204

Department of Electronics and Communication Engineering

Submitted to:

Date: 29/08/2019

The Principal,
JNNCE, Shimoga



Respected Sir,

Sub: Request your kind approval to organize the two days hands on workshop on "Line Follower Design and Prototyping" on 31/08/2019 to 01/09/2019.

With reference to above subject, the department of Electronics and Communication Engineering is planning to conduct the two days hands on workshop on "Line Follower Design and Prototyping" on 31/08/2019 to 01/09/2019 for ECE students. So request your kind approval to organize this event and budget sanction.

Budget Estimates:

SL No	Head of Expenditure	Details of Expenditure	Anticipated Expenditure
1.	Remunerations for Resource Persons	4 Persons X Rs. 2,500	10,000/-
2.	Components for Line Follower	28 Batches X Rs. 2100	58,800/-
3.	Certificates	130 X Rs. 13	1,690/-
4.	Book and Pen	130 X Rs. 20	2,600/-
5.	Working lunch for 130 students	130 X Rs. 40	5,200/-
		Total Estimated Amount	78,290/-

Expected number of Batches:	28 Batches
Amount Charged for each Batch	Rs. 2,100/-
Registration Fee	Rs. 200/-
Total: 28 X Rs. 2,300/-	Rs. 64,400/-

Total Expenses	78,290/-
Total Receipts from other sources	64,400/-
Contribution needed from JNNCE	13,890/-

Request you to contribute Rs. 13,890/- to organize this two days hand on workshop.

10ES/2153/19-20 JNNCE/364/2019-20 D/29/08/19 D:31/08/19

Coordinator
Shwetha H R

Forwarded to secretary, NES
for kind approval

29-8-19
Dr. Mainjunatha P
HOD, ECE

APPS
to w/w
30/8

Administrative Approval
Principal
Jawaharlal Nehru
National College of Engineering
Shivamogga
29/8/19

EST
29/8/19
HOD, ECE
HB
31/9



National Education Society (R.)

Jawaharlal Nehru National College of Engineering, Shimoga

(Approved by AICTE, New Delhi, Certified by UGC 2f & 12B, Accredited by NAAC - 'B',
Recognized by Govt. of Karnataka and Affiliated to VTU, Belagavi)



LINE FOLLOWER DESIGN AND PROTOTYPING

REPORT

The main aim of the workshop was to design and prototype LINE FOLLOWER robots, which was organized for the second and third year E&C students of JNNCE. It was conducted on **31-08-2019** and **01-09-2019**. It was thought by the "Team SOLIC", in association with the department of **Electronics and communication**.

The line follower bot includes a robot which has to follow a specific track designed and the students must program the bot in such a way that it minimizes the path or time taken. It includes a microcontroller (Arduino), a motor driver (L293D), a set of IR sensors and the chassis (body) for holding all the components together. The workshop aims at building such type of robots to the students.

The whole workshop was divided into 2 batches of 30 groups, each group consisted of 4 members. The groups contained students from both second year and third year students.

At first the students were made to learn programming on microcontroller (Arduino IDE) and how to program further to the robot. Next it was thought about the interfacing of all the components and connect them correctly for the perfect working of the robot. Next it was explained about the working of **IR** sensors and how to make the robot run using these sensors.

Later the whole working of the robot was explained how the controller reads the data from the sensors and sends signal to the motor driver according to the input received, the motor driver drives the wheels according to the signal received from the controller.

After the construction of the robot and explaining about the working students were given a practical session to run their robots on a Line Follower map. The map consists of a thick Black line on a plain white surface. The robot must follow the black line up to the finish of the track. At first the students were made to learn a process called CALBRATION, where in the students must adjust the sensing capability of their sensors according to the lighting conditions present there and detect the black surface. After this process students were made to run their robots. Thus at the final our aim was achieved at the end of the workshop and all the students were able to understand all the concepts studied in this workshop and able to build their own robots

B. S. S.

Registration Form

Two Days Workshop

On

“Line follower Design and
Prototyping”

31-08-2019 to 01-09-2019

1. Name: _____

2. USN: _____

3. Department: _____

4. Phone number: _____

5. Email-ID: _____

Registration fee details:

Transaction Number:

Date:

Signature of the
Applicant

Chief Patrons

Sri A S Vishwanatha, President, NES
Sri T R Ashwathnarayana Setty, Vice President,
NES
Sri S N Nagaraja, Secretary, NES
Sri Amarendra Kireeti, Joint Secretary,
NES
Sri C R Nagaraj, Treasurer, NES

Patrons

Dr. H R Mahadevaswamy Principal JNNCE,
Shivamogga
Dr. L K Sreepathi Vice Principal JNNCE,
Shivamogga

Program Chair

Dr. Manjunatha P, HOD, Dept. of ECE, JNNCE

Co-ordinator

Shwetha H R Assistant Professor, Dept. of ECE,
JNNCE

Sharath S M Assistant Professor, Dept of ECE,
JNNCE

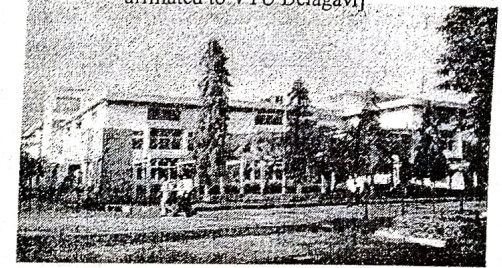
Organizing Committee

All Teaching and non Teaching staff of Electronics
& Communication Engineering Department

National Education Society ®

Jawaharlal Nehru National College of
Engineering, Shivamogga – 577 204

[Approved by AICTE, New Delhi, certified by UGC 2f & 12B,
accredited by NAAC-'B', recognized by Govt of Karnataka and
affiliated to VTU Belagavi]



Two Weeks National Level Workshop
On

“Line follower Design and prototyping”

From

31-08-2019 to 1-09-2019

Organized by

Department of Electronics & Communication
Engineering

Address for Communication:

Mrs. Shwetha H R, Asst. Professor

Ph: 7204443953

Mr Sharath S M, Asst professor,

Ph: 9611109995

E-mail: shwethahr@jnnce.ac.in

About The College:

JNNCE was established in the year 1980 by the National Education Society. The college is affiliated to Visvesvaraya Technological University (VTU), Belgaum and recognized by AICTE, New Delhi. Institution is NAAC accredited and UGC 2f and 12B certified. It offers 7 UG and 7 M.Tech program besides MBA and MCA. It has 7 Research Centers recognized by VTU. Spread over 52 acres, the campus has all the amenities to cater to the needs of about 3500 students and 400 faculty and staff. All the departments have good infrastructural facilities with highly qualified and experienced faculty, staff and well equipped laboratories. The college is regarded as one of the excellent centers for technical education and research. JNNCE is ranked 34th among top Engineering colleges in India and 7th in Karnataka as per Outlook survey 2019. The college is providing its fruitful services in the 39th year. The college organizes international and national workshops, conferences, seminars and short term courses on a regular basis. The institution has IEEE as well as ISTE members.

About the Department:

The Department of Electronics & Communication Engineering was started in the year 1980. Department have well equipped laboratories, qualified and experienced staff to cater to the needs of students of UG program and PG program M.Tech in Digital Electronics and Communication Systems. The ECE department has been recognized as research center under which 16 research scholars are pursuing Ph.D under VTU Belgaum. UG and PG students are actively involved in carrying out their projects at New Age Incubation Network. The department has IETE and ISF forums. The Institute of Electronics and Telecommunication Engineers (IETE) center is the national apex body of professional engineers devoted to the advancements of Electronics, Telecommunications, IT and allied areas. The 56th center of IETE was inaugurated at Jawaharlal Nehru national College of Engineering Shivamogga on 1st March 2009.

Department Vision

To be a premier centre of education and research in Electronics & Communication Engineering for producing competent engineers to cater to the needs of industry and society.

Department Mission

- Impart quality education through innovative and continuous teaching - learning process
- Groom the students with required foundations of Electronics & Communication Engineering and inculcate in them the professional ethics & human values.
- Train the students and the faculty in state - of - the-art technologies and motivate them for higher studies & innovation based research for the needs of the industry and society.
- Create centers of excellence in the field of Electronics & Communication Engineering in collaboration with the industries and academic organizations.

About the Workshop

This Workshop is being organized for two days to provide a platform for aspiring Students, to understand the basic concepts of Arduino and sensor interfaces through which the **line follower** is designed and prototyped to solve complex tracks with different algorithms.

Topics:

- Introduction to various sensors and motor drivers.
- Interfacing different components
- Connecting all the hardware
- Programming of arduino using arduino IDE
- Calibrating and testing of bots
- Explaining different types of codes
- Running of bots on a pre-defined track

Participation

The interested academicians from Electronics Telecommunication, Computer science, Information science, industry personnel, researchers and allied disciplines are invited to attend the twelve days Workshop.

Resource Persons:

Resource persons from distinguished Research Institutes, industries and colleges will deliver expert lectures and practical sessions.

Registration details:

Students	Rs.200
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The registration fee should be paid through online, the details of which are given below.

Bank : CANARA BANK
Branch : JNNCE Campus, Shimoga
SB A/c. No. : 6322201000004
IFSC code : CNRB0006322

Scanned copy of the application with duly forwarded by the HOD and Principal, must be sent along with online transaction to the conveners email id. The number of participants is limited to 30 Batches on first come first serve basis.

Note: Registration fee does not include accommodation. However accommodation may be provided to the participant with a nominal fee in the college hostel. No TA/DA will be provided for the participants.

Important Dates

Submission of application forms by: 17th August 2019.
Workshop Dates: 31/08/2019 to 01/09/2019.

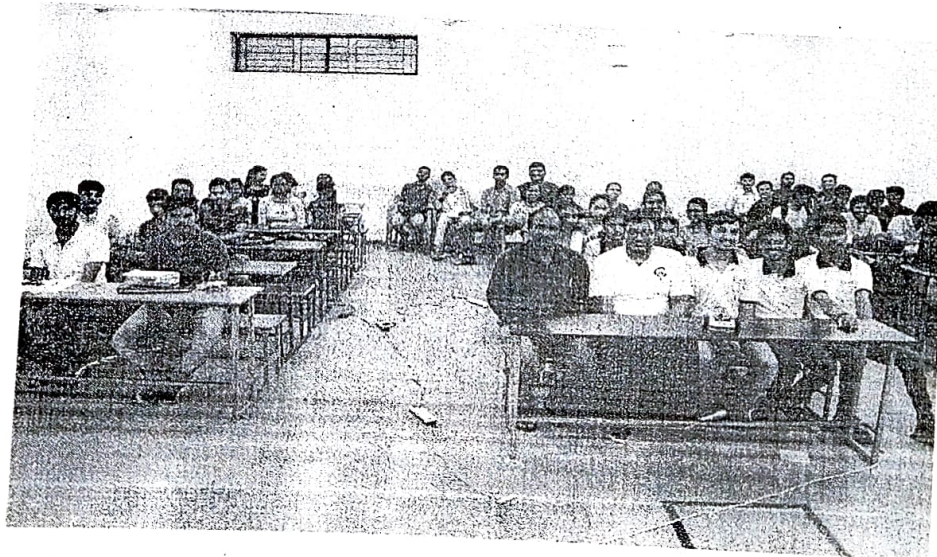
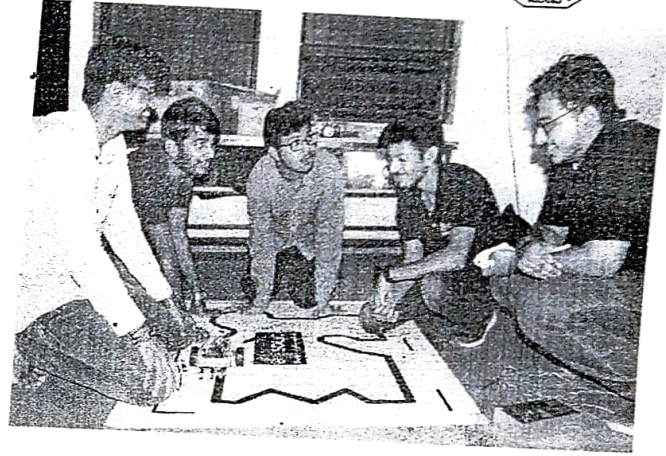
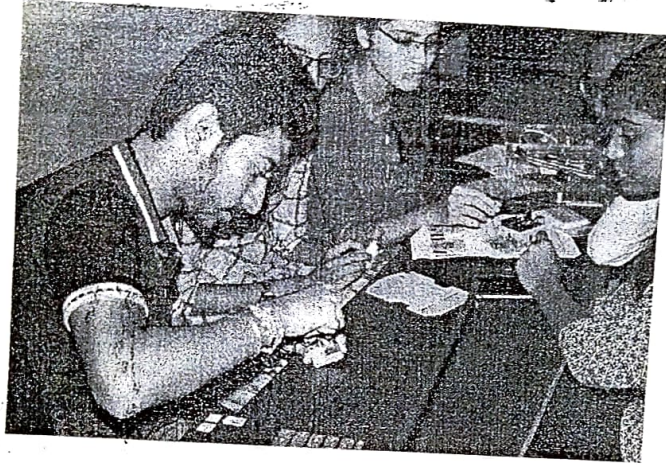
Venue:

106 class Room (ECE Dept.)

Timings: 9.00 am to 5.00 pm



National Education Society
Jawaharlal Nehru National College of Engineering Shivamogga-577204
Department of Electronics and Communication Engineering



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Jawaharlal Nehru National College of Engineering, Shivamogga, Karnataka

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Internal Quality Assurance Cell

Department of Electronics & Communication Engineering
in association with IETE, Shimoga Centre



TWO DAYS WORKSHOP ON

LINE FOLLOWER DESIGN & PROTOTYPING

on 31/08/2019 - 1/09/2019

Certificate

This is to certify that Mr / Ms of

sem has participated the two days workshop on "LINE FOLLOWER DESIGN & PROTOTYPING"

held during 31/08/2019 to 1/09/2019 in JNNCE, Shivamogga.

Sharath S.M

Asst. Professor & Co-ordinator
Department of ECE
JNNCE, Shivamogga

Shwetha H.R.

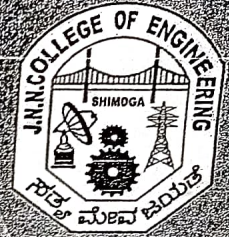
Asst. Professor & Co-ordinator
Department of ECE
JNNCE, Shivamogga

Dr. Manjunath P.

Head of the Department
Department of ECE
JNNCE, Shivamogga

Dr. H.R. Mahadevaswamy

Principal
JNNCE, Shivamogga



Workshop on "Line Follower Design and Prototyping" on 01-09-2019

Attendance

SL. no	Name	USN	Class and Section	Morning Session	Afternoon Session
1.	Shripada Adiga	4JN18EC085	3 rd B	Shripada Adiga	Shripada Adiga
	Shashanka GS	4JN18EC081	3 rd B	Shashanka GS	Shashanka GS
2.	Suman S	4JN18EC096	3 rd B	Suman S	Suman S
	Sumanth H R	4JN18EC098	3 rd B	Sumanth H R	Sumanth H R
	Suhas N S	4JN18EC094	3 rd B	Suhas N S	Suhas N S
	Varun M	4JN18EC110	3 rd B	Varun M	Varun M
3.	Soukya B V	4JN18EC090	3 rd B	Soukya B V	Soukya B V
	Spoorthi T S	4JN18EC091	3 rd B	Spoorthi T S	Spoorthi T S
	Spoorthy	4JN18EC092	3 rd B	Spoorthy	Spoorthy
	Sinchana S R				
4.	Deeksha T J	4JN18EC025	3 rd A	Deeksha T J	Deeksha T J
	Chitreshree	4JN18EC024	3 rd A	Chitreshree	Chitreshree
	Harshitha M D	4JN18EC033	3 rd A	Harshitha M D	Harshitha M D
	Adithi S R	4JN18EC004	3 rd A	Adithi S R	Adithi S R
5.	Bhargavi S G	4JN18EC017	III A	Bhargavi S G	Bhargavi S G
	Ganashree K G	4JN18EC029	III A	Ganashree K G	Ganashree K G
	Kavya C M	4JN18EC040	3 rd A	Kavya C M	Kavya C M
	Bhoomika B C	4JN18EC019	III A	Bhoomika B C	Bhoomika B C
6.	Anushree N R	4JN18EC012	III A	Anushree N R	Anushree N R
	Inchara V Shetty	4JN18EC036	III A	Inchara V Shetty	Inchara V Shetty
	Bargavi G N	4JN18EC016	III A	Bargavi G N	Bargavi G N
	Aishwarya S	4JN18EC006	III A	Aishwarya S	Aishwarya S
7.	Shilpa S	4JN18EC083	III B	Shilpa S	Shilpa S
	Kavana M	4JN18EC039	III A	Kavana M	Kavana M
	Ranjitha P	4JN18EC069	III B	Ranjitha P	Ranjitha P
	Anuja B N		III B	Anuja B N	Anuja B N
8.	Mohammed Safer Abbas	4JN18EC045	IV A	Mohammed Safer Abbas	Mohammed Safer Abbas
	Guru Prasad Ram	4JN18EC025	IV A	Guru Prasad Ram	Guru Prasad Ram
	Arbaz Basha	4JN18EC407	IV A	Arbaz Basha	Arbaz Basha
	Punith	4JN18EC023	IV A	Punith	Punith
9.	Prateek K Y	4JN18EC061	III A	Prateek K Y	Prateek K Y
	Kumar V B	4JN18EC043	III A	Kumar V B	Kumar V B
	Gautham S G	4JN18EC031	III A	Gautham S G	Gautham S G
10.	Ganesh G Shet	4JN18EC030	III A	Ganesh G Shet	Ganesh G Shet
	Amoghavarsha S G	4JN18EC010	III A	Amoghavarsha S G	Amoghavarsha S G
	Kiran C N	4JN18EC041	III A	Kiran C N	Kiran C N
11.	Manoj Kumar K P	4JN18EC046	IV A	Manoj Kumar K P	Manoj Kumar K P
	Pramod R	4JN18EC060	IV A	Pramod R	Pramod R
	Areebur Rahman	4JN18EC013	III A	Areebur Rahman	Areebur Rahman
12.	Mohammed Shahid	4JN18EC049	III A	Mohammed Shahid	Mohammed Shahid
	Mohammed Saqib	4JN18EC048	III A	Mohammed Saqib	Mohammed Saqib
13.	Deepak B N	4JN18EC026	III A	Deepak B N	Deepak B N
14.	Mohammed Junied	4JN18EC044	IV A	Mohammed Junied	Mohammed Junied
	Mohammed Zeeshan	4JN18EC046	IV A	Mohammed Zeeshan	Mohammed Zeeshan
	Prajwal S Yellur	4JN18EC060	IV A	Prajwal S Yellur	Prajwal S Yellur

EC045

Bharadwaj

	Gautham.S.G	4JN18EC031	8867417794	IIA		
10.	Ganesh.G.shet	4JN18EC030	8310841280	IIA	2300	Ganesh
	Amoghavarscha.S.S	4JN18ED10	9420053306	IIA		Amogh
	Krishan.C.N.	4JN18EC041	7000198000	IIA		Krishan C.N.
11.	Manoj.Kimalk P	4JN18EC046	7624998819	IIA	2300/-	Manoj
	Dharmod.R	4JN18EC060	9741431839	IIA		Dharmod
	Azeeb ur Rahman	4JN18EC013	9448553083	IIA		Azeeb
12.	MOHAMMED SHARIF	4JN18EC049	7619579739	IIA	300	Sharif
	MOHAMMED SAQIB	4JN18EC048	9844175638	IIA		Saqib
13.	Deepak.B.N	4JN18EC026	9686505095	IIA	2300/-	Deepak
14.	Mohammed Junaid	4JN17EC044	7259682846	VA	300	Junaid
	Mohammed Zeeshan	4JN17EC046	9110806343	VA		Zeeshan
	prajwal syellus	4JN17EC060		VA		Prajwal
15.						
16.						
17.						
18.						