K. S. R. COLLEGE OF ENGINEERING, TIRUCHENGODE

(Autonomous)

Approved by AICTE, New Delhi & Affiliated to Anna University

Chennai

ORGANIZED BY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

WORKSHOP

ACADEMIC YEAR: 2017-2018

"Internet of Things: Challenges and Applications using Raspberry Pi Processor (IoT-CAR)"

on

31.07.2017 to 01.08.2017

Co-ordinators: Dr.P.S.Periasamy, Professor&Head /ECE
Mr.P.Sivakumar, AP/ECE
Mr.S.Senthil Kumar, AP/ECE
Mr.K.P.Uvarajan, AP/ECE

PRINCIPAL
K.S.R. COLLEGE OF ENGINEERING
K.S.R. KALVI NAGAR, -
TIRUCHENGODE-637 215

K.S.R.College of Engineering, Tiruchengode – 637 215.
(Autonomous)
Department of Electronics and Communication Engineering
Organizes
Two Days Workshop on
"Internet of Things: Challenges and Applications using Raspberry Pi Processor (IoT-CAR)"
31.07.2017 to 01.08.2017

Event Schedule

1	Name of the Event (Seminar/Workshop/Conference/FDP/ Any other)	Workshop
2	Name of the Organizer	ECE Department
3	Date of Event	31.07.2017 to 01.08.2017
4	Platform	OFFLINE
5	Title of the Event	Two days workshop on Internet of Things Challenges and Application using Raspberry PI Processor
6	Name of the Coordinators	Dr.P.S.Periasamy, Prof. & Head /ECE K.S.R. College of Engineering
7	Total Participants	31
8	Objective of the Event	This program serves as a platform for Research Scholars, Faculty, Engineers and Students to interact on cutting edge technologies in IoT.
9	Outcome of the Event	IoT is the network of physical objects or things embedded with electronics, software sensors and network connectivity which enables theses objects to collect and exchange data.

COORDINATOR &
HOD / ECE

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Department of Electronics and Communication Engineering

Organizes

Two Days Workshop on

"Internet of Things: Challenges and Applications using Raspberry Pi Processor (IoT-CAR)"

31.07.2017 to 01.08.2017

Intent of Workshop:

This program aims at providing an opportunity for participants to enrich their knowledge and skill in developing various solutions for solving engineering problems in the society using IoT.

Theme:

The IoT allows objects to be controlled remotely across existing network infrastructure, creating opportunities for more direct integration between the physical world and computer based systems and resulting in improved efficiency, accuracy and economic benefit. When IoT is augmented with sensors and actuators, the technology becomes an instance of the more general class of cyber physical systems which also encompasses technologies such as smart grids, smart homes intelligent transportation and smart cities.

Topics Covered:

- What is an IOT, Raspberry Pi processor
- Setting up a Raspberry Pi
- Raspberry Pi Peripherals & Various Interfacing
- Working with a web server to store data and run other applications
- Using Python and MySQL and Getting weather forecast updates
- Hands on Experience on IoT using Raspberry Pi Processor and Robotics Kits
- Discussion of project ideas based on Raspberry Pi

**COORDINATOR &
HOD / ECE**

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K.S.R. College of Engineering, Tiruchengode.
Department of Electronics and Communication Engineering

Date: 17.07.2017

Sub: Requisition to conduct two days workshop- Reg.

We have planned to organize two days workshop on "Internet of Things: Challenges and Applications using Raspberry Pi Processor (IoT-CAR)" for our students and outside participants from 31.07.17 (Monday) & 01.08.17 (Tuesday).So we kindly request you to grant the permission to conduct the workshop on above mentioned dates.

Registration fee:

For internal participants: Rs.300/-

For external participants: Rs.600/-

17.7.17
Faculty In-Charge
S. Senthilkumar.

HOD/ECE   17.07.17

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K.S.R COLLEGE OF ENGINEERING (Autonomous), TIRUCHENGODE – 637215
(An AICTE approved and accredited by NAAC with 'A' Grade)

Department of Electronics and Communication Engineering

Two Days Workshop on "Internet of Things: Challenges and Applications using Raspberry Pi Processor (IoT-CAR)"

31.07.2017 to 01.08.2017

<u>INAUGURAL FUNCTION</u>

Venue: Seminar Hall

Date: 31.07.2017
Time: 10.00 AM

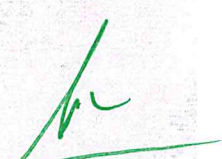|	
Welcome address	:Dr.A.M.Basha Director/ECE K.S.R. College of Engineering
Inaugural address	: Dr.P.S.Periasamy Professor & Head/ECE K.S.R. College of Engineering
Presidential address	:Dr.K.Kaliannan Principal K.S.R. College of Engineering
Chairman's address	:Lion.Dr.K.S.Rangasamy,MJF Chairman, K.S.R. Educational Institutions
Special address	:Shri.R,Srinivasan ,B.B.M.,MISTE Secretary, K.S.R. Educational Institutions
Vote of Thanks	: P.Sivakumar Assistant Professor/ECE K.S.R. College of Engineering

"YOU ARE CORDIALLY INVITED "

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TIRUCHENGODE-637 215

Two Days Workshop on "Internet of Things: Challenges and Applications using Raspberry Pi Processor (IoT-CAR)"

31.07.17 & 01.08.17

REGISTRATION FORM

Name :

Designation :

Organization :

Address :

Mobile. No. :

E-mail :

Student / Research Scholar/: Academia

Accommodation required : Yes / No

    I agree to abide by the Rules & Regulations of the workshop and I will attend the workshop for the entire duration.

Place:

Date:

                Signature of the Applicant

SPONSORSHIP

Dr. / Mr ./ Ms. _____ is a student / employee of our Institution / Industry is permitted to attend the program, if selected.

Place:

Date:

        Signature of Head of the Dept. /Institution with Seal

HOW TO APPLY

    The scanned / photocopy / softcopy of filled registration form should be sent via email to
        Iotrespi2017@gmail.com

*On prior intimation spot registration is also available

IMPORTANT DATES

Last date for Registration : 25.07.17

Intimation of Selection : 26.07.17

REGISTRATION DETAILS

    Selected participants will be informed via E-mail with further **details about the payment of Registration Fee**.

COURSE FEE AND REGISTRATION

Participant	Fees
Student UG	600
Student PG	700
Researchers/Faculty	850
Industrial Person	1000

WHO COULD ATTEND?

- Students seeking future in Embedded and Robotics Industry.
- Robotics enthusiasts who want to accomplish the impossible.
- Any Engineering student of any year and any branch is eligible for this workshop.
- UG & PG students, Research scholars, Faculty members, Engineers from R&D Institutions and Industries.

PATRON:
Lion.Dr.K.S.Rangasamy,MJF
Founder-Chairman
KSR Educational Institutions

Mr.R.Srinivasan
Vice-Chairman
KSR Educational Institutions

CONVENER:
Dr.P.S. Periasamy
Professor & Head /ECE

WORKSHOP COORDINATORS:
P.Sivakumar AP/ECE
S.Senthil Kumar AP/ECE
K.P.Uvarajan AP/ECE

ORGANIZING COMMITTEE:
L.Raja AP/ECE
R.Mahendran AP/ECE
C.Karthik AP/ECE

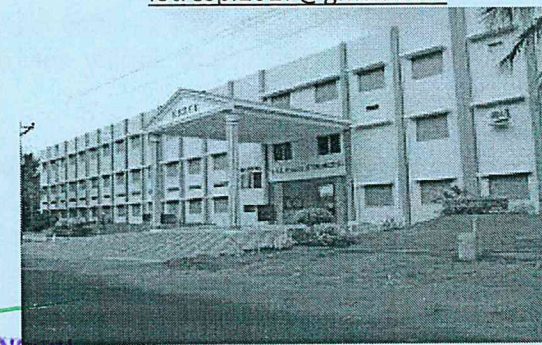### ADDRESS FOR CORRESPONDENCE
Mr.S.Senthil Kumar,AP/ECE,
K.S.R. College of Engineering,
Tiruchengode, Namakkal District-637215,
Tamilnadu, India.
Contact No: 9865523385, 9655047775
For more information about the Workshop Please write to
Iotrespi2017@gmail.com

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K.S.R. COLLEGE OF ENGINEERING
K.S.R. KALVI NAGAR,
TIRUCHENGODE-637 215

ABOUT THE COLLEGE

K.S.R. College of Engineering was established in the year 2001 by Aarthi Educational and Charitable trust, approved by AICTE, New Delhi and affiliated to Anna University, Chennai. Our College is an ISO 9001–2008(E) certified and NBA Accredited Institution. The institution is conferred with the Autonomous status by UGC & Anna University, Chennai in the year 2012. Our College offers 7 UG and 13 PG Programs in Engineering, Technology and Management. The College has completed fifteen years of dedicated service in the field of Technical Education with an avowed mission to inculcate the students self-learning abilities that enable them to become competitive and considerate engineers, technologists, scientists, managers, administrators and entrepreneurs by diligently imparting the best of education, nurturing environmental and social needs.

ABOUT THE DEPARTMENT

The Department of Electronics and Communication was started in the year 2001. The department has won the best e-Governance project from Tamilnadu government. The department has well equipped laboratories and Anna University has recognized the department as research centre. The department has well qualified faculty with adequate infrastructure facility for research and development.

SCOPE OF THE PROGRAM

IoT is the network of physical objects or things embedded with electronics, software sensors and network connectivity which enables theses objects to collect and exchange data. The IoT allows objects to be controlled remotely across existing network infrastructure, creating opportunities for more direct integration between the physical world and computer based systems and resulting in improved efficiency, accuracy and economic benefit. When IoT is augmented with sensors and actuators, the technology becomes an instance of the more general class of cyber physical systems which also encompasses technologies such as smart grids, smart homes intelligent transportation and smart cities.
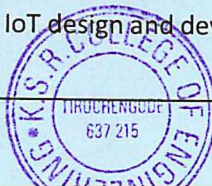
WORKSHOP OBJECTIVES

This program aims at providing an opportunity for participants to enrich their knowledge and skill in developing various solutions for solving engineering problems in the society using IoT. This program serves as a platform for Research Scholars, Faculty, Engineers and Students to interact on cutting edge technologies in IoT.

PROGRAMME CONTENT

- What is an IOT, Raspberry Pi processor
- Setting up a Raspberry Pi
- Raspberry Pi Peripherals & Various Interfacing
- Working with a web server to store data and run other applications
- Using Python and MySQL and Getting weather forecast updates
- Hands on Experience on IoT using Raspberry Pi Processor and Robotics Kits
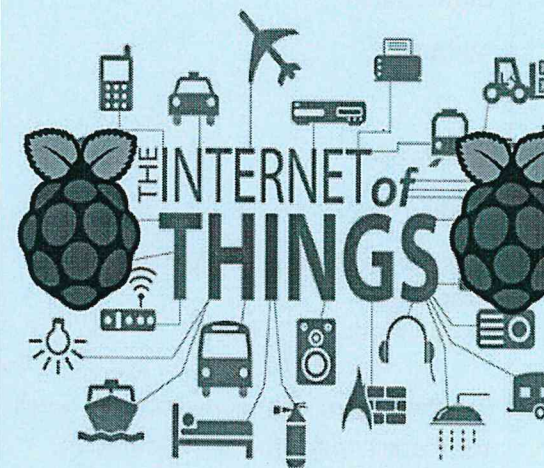- Discussion of project ideas based on Raspberry Pi

RESOURCE PERSON

The Industry Experts with experience and expertise in IoT design and development.

Two Days Workshop on

"Internet of Things: Challenges and Applications using Raspberry Pi Processor (IoT-CAR)"
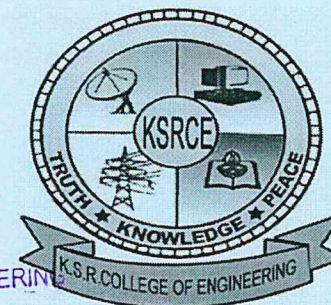
31.07.17 & 01.08.17

Organized by
Department of ECE
K.S.R. College of Engineering,
Tiruchengode, Namakkal District-637215,
Tamilnadu, India.

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K.S.R. COLLEGE OF ENGINEERING
(Autonomous)
Department of Electronics and Communication Engineering
Two days workshop on "Internet of Things: Challenges and Applications using Raspberry Pi Processor (IoT-CAR)"
<u>31.07.2017 & 01.08.2017</u>

<u>Workshop Schedule</u>

Day 1 : 31.07.2017	
9.00 AM to 10:00 AM	Registration
10.00 AM to 10:30 AM	Inauguration
10.30 AM to 10:40 AM	Tea break
10.45 AM to 11:45 AM	What is an IOT, Raspberry Pi processor
11.45 AM to 01:00 PM	Setting up a Raspberry Pi
01.00 PM to 02:00 PM	Lunch Break
02.00 PM to 03:15 PM	Working with a web server to store data and run other applications
03.15 PM to 03:30 PM	Tea break
03.30 PM to 04:30 PM	Hardware Interfacing
Day 2 : 01.08.2017	
Hands on Session	
9.30 AM to 10:45 AM	Using Python and MySQL and Getting weather forecast updates
10.45 AM to 11:00 AM	Tea break
11.00 AM to 01:00 PM	Hands on experience on IoT using Raspberry Pi Processor and Robotics kits
01.00 PM to 02:00 PM	Lunch Break
02.00 PM to 03:15 PM	Discussion of project ideas based on Raspberry Pi
03.15 PM to 03:30 PM	Tea break
03.30 PM to 04:30 PM	Quiz and feedback

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(Autonomous)

Department of Electronics and Communication Engineering

Two Days Workshop on

"Internet of Things: Challenges and Applications using Raspberry Pi Processor (IoT-CAR)"

31.07.17 & 01.08.17

Attendance Sheet

S.NO	NAME,DESIGNATION/DEPARTMENT	31.07.2017		01.08.2017	
		FN	AN	FN	AN
1	B.SARANYA,AP/ECE				
2	G.KIRUTHIKAMANI,AP/ECE				
3	R.HARINISRI				
4	B.PREETHI				
5	N.VIDHYA				
6	P.MYVIZHI				
7	S.INDU				
8	M.PAVITHRA				
9	G.LAVANYA				
10	N.POORNIMA				
11	M.LOGANAYAGI				
12	S.ISWARYA				
13	R.JAYA PRIYA				
14	S.MADHAN KUMAR				
15	N.RISHI VISHVA				
16	S.MAHESHWARAN				
17	S.ABILASH				
18	P.AKILAN				
19	S.CHILAMBUSELVAN				
20	T.MALLEESHWARAN				
21	A.PETER				
22	H.KHAJA MOHIDEEN				
23	R.SARANYA				
24	V.DEVADHARSHINI				
25	T.NARMATHA				
26	J.R.PRABHAKARAN				
27	P.KUMAR				
28	M.PRAVIN KUMAR				
29	K.KARUPPANASAMY				
30	R.POORNIMA				
31	M.JOTHIMANI				

CO-ORDINATOR

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HOD/ECE

Two Days Workshop on
"Internet of Things: Challenges and Applications using Raspberry Pi Processor (IoT-CAR)"
31.07.17 & 01.08.17
REGISTRATION FORM

Name : G.Kiruthikamani

Designation : Assistant professor

Organization : Sri Ramakrishna Institute of Technology

Address : Pachapalayam, Power chettipalayam Coimbatore -641010

Mobile. No. : 9865128286

E-mail : Kiruthikamani.ece@srit.org

Student / Faculty / Industrial Person : Faculty

I agree to abide by the Rules & Regulations of the workshop and I will attend the workshop for the entire duration.

Place: Coimbatore

Date: 26.7.17

G.K 26.7.17

Signature of the Applicant

SPONSORSHIP

Dr. / Mr ./ Ms. _____
is a student / employee of our Institution / Industrial person is permitted to attend the program, if selected.

Place:
Date:

PRINCIPAL Signature of Head of the
Sri Ramakrishna Institution With seal
COIMBATORE-641 010

HOW TO APPLY

The scanned / photocopy / softcopy of filled registration form should be sent via email to
Iotrespi2017@gmail.com
*On prior intimation spot registration is also available

IMPORTANT DATES

Last date for Registration : 25.07.17
Intimation of Selection : 26.07.17

REGISTRATION DETAILS

Selected participants will be informed through E-mail with further details about the payment of Registration Fee.

COURSE FEE AND REGISTRATION

Accommodation and boarding if required will be provided in the college campus on chargeable basis.

Participant	Fees
Student UG	600
Student PG	700
Faculty	850
Industrial Person	1000

WHO COULD ATTEND?

- Students seeking future in Embedded and Robotics Industry.
- Robotics enthusiasts who want to accomplish the impossible.
- Any Engineering student of any year and any branch is eligible for this workshop.
- UG & PG students, Research scholars, Faculty members, Engineers from R&D Institutions and Industries.

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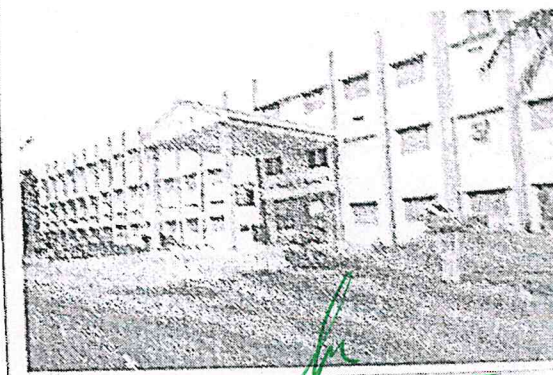**ORGANIZING COMMITTEE:**
L.Raja AP/ECE
R.Mahendran AP/ECE
C.Karthik AP/ECE

ADDRESS FOR CORRESPONDENCE
Mr.S.Senthil Kumar,AP/ECE,
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Department of Electronics and Communication Engineering
Two Days Workshop on
"Internet of Things: Challenges and Applications using Raspberry Pi Processor (IoT-CAR)"
31.07.17 & 01.08.17

Feedback form

We would appreciate if you could take a few minutes to share your opinions with us so we can serve you better.

Date : 1/8/2017

Name : SARANYA.B
Designation : Assistant Professor
College : Sri Ramakrishna Institute of Technology, Coimbatore

A. Content	1 Fair	2	3	4 Excellent
Covered useful material			✓	
Practical to my needs and interests			✓	
Well organized				✓
Well paced				✓
Presented at the right level			✓	
Useful visual aids and hand-outs			✓	
B. Presentation				
Instructor's knowledge			✓	
Instructor's presentation style			✓	
Instructor covered material clearly				✓
Instructor responded well to questions				✓
Instructor facilitated interactions among participants well				✓

C. How could this workshop be improved?

More number of peripherals could be interfaced with Hands-on.

D. Any other comments or suggestions?

No of Sessions could be increased

E. Overall, how would you rate this workshop?

[ ] POOR   [ ] FAIR   [✓] GOOD   [ ] EXCELLENT

Please return this form to the instructor or organizer at the end of the workshop. Thank you.

B. S
1/8/17
SIGNATURE

K.S.R. College of Engineering(Autonomous), Tiruchengode.

Department of Electronics and Communication Engineering
Two Days Workshop on
"Internet of Things: Challenges and Applications using Raspberry Pi Processor (IoT-CAR)"
31.07.17 & 01.08.17

Feedback form

We would appreciate if you could take a few minutes to share your opinions with us so we can serve you better.

Name : G. Kiruthikamani   Date : 01 . 08 . 2017
Designation : Assistant professor
College : Sri Ramakrishna Institute of Technology .

A. Content	1 Fair	2	3	4 Excellent
Covered useful material				✓
Practical to my needs and interests			✓	
Well organized				✓
Well paced				✓
Presented at the right level				✓
Useful visual aids and hand-outs			✓	
B. Presentation				
Instructor's knowledge				✓
Instructor's presentation style				✓
Instructor covered material clearly				✓
Instructor responded well to questions				✓
Instructor facilitated interactions among participants well				✓

C. How could this workshop be improved?

Giving More number of Applications

D. Any other comments or suggestions?

Cost can be reduced

E. Overall, how would you rate this workshop?

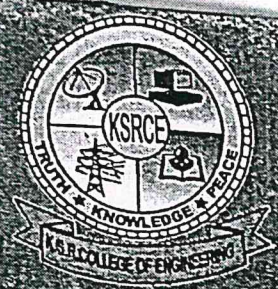[ ] POOR   [ ] FAIR   [ ] GOOD   [✓] EXCELLENT

Please return this form to the instructor or organizer at the end of the workshop. Thank you.

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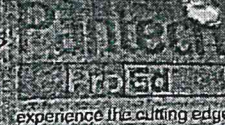
G. K 01. 08. 2017
SIGNATURE

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(Autonomous)

Affiliated to Anna University Chennai & Approved by AICTE
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K.S.R. Kalvi Nagar, Tiruchengode - 637215

Department of Electronics and Communication Engineering

Workshop on
"Internet of Things: Challenges and Applications using Raspberry Pi Processor (IoT-CAR)"
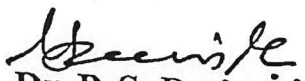
CERTIFICATE

This is to certify that Mr./Ms. **R. POORNIMA, AP/ECE of K.S.R. COLLEGE OF ENGINEERING**

has participated in the Workshop on **"Internet of Things: Challenges and Applications using Raspberry Pi Processor(IoT-CAR)"** from 31.07.17 to 01.08.17, organized by Department of Electronics and Communication Engineering, K.S.R. College of Engineering Tiruchengode, in association with Pantech ProEd Pvt Ltd.

Mr. A. Vinothkumar
Manager
Pantech ProEd Pvt Ltd

Mr. P. Sivakumar
Co-ordinator

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Dr. P. S. Periasamy
HOD / ECE