Report

Embedded Systems: An Application-Driven Approach

25-27 August 2021

Inauguration of the workshop: https://youtu.be/OK7oYtgG1F8

Prof. Anil D Sahasrabudhe
Chairman, AICTE

Prof. Anil Sahasrabudhe, as Chairman of All India Council for Technical Education (AICTE) is well known for his impressive work of leading reforms in technical education through various initiatives for students, faculty and institutions.

Prof. Sahasrabudhe has been contributing immensely to the academic ecosystem for which he has received several awards

Guru Ganesan
Managing Director and President Arm, India

Guru Ganesan is Corporate Sr. Vice President and President & Managing Director of Arm India; prior to his current role, he was VP-Engineering in Arm-San Jose. Guru founded Arm in India. He has had various many management roles in Synopsys, Texas Instruments, Cadence Design Systems, Artisan Components Inc in USA.

In his current role, Guru overseas the engineering and commercial operations of Arm India. Guru is passionate about the use of technology and its impact on people. Guru is currently part of IESA Executive Council and on the advisory board of IIIT Bangalore and IIT-Hyderabad.

Vivek Sharma
Managing Director STMicroelectronics India

Vivek began his career with SGS-Thomson (now STMicroelectronics) in 1991 as a design engineer In his present role since 2016 as Managing Director He is responsible for the Company's overall operations in India and has been driving ST's strategic initiatives in the country. His role includes overseeing HR, Sales & Marketing for Asia Pacific Region
In addition to his responsibilities at ST, Sharma has frequently served as an elected member of the Executive Council of Indian Electronics & Semiconductor Association, as well as with European Business Group, Indo Italian Chamber of Commerce, and Industry/Govt. committees. He is recognized for his role in shaping the semiconductor sector in India and his contributions to various forums in India and globally.
Vivek holds three international patents in integrated circuit design.
He received a Master of Technology in Communication Engineering from the IIT (Delhi) and a Bachelor of Engineering in Electronics & Communications from PEC (Chandigarh).

Mamta R Agarwal
Advisor, ATAL Academy, AICTE

Mamta R Agarwal is former Joint Secretary, University Grants Commission, Director, Education, New Delhi and from the first batch of lady pilots in Indian Airforce. She has been international speaker at Dept of public policy & international affairs, University of Columbia on *Urban Education: Reforming Education System & Innovations in K12*. She has compiled and edited 5 volumes reference book on NEP.

Day 1: Embedded Systems Essentials

Date: 25-8-2021, Wednesday

S.No	Topics	Time	Speakers
1	• Inauguration: Representatives from: • AICTE • Arm • STMicroelectronics	9:30 AM - 10:15 AM IST	Prof. Anil Dattatraya Sahasrabudhe Chairman, AICTE Mamta Rani Agarwal, Advisor, ATAL Academy AICTE Guru Ganesan Managing Director and President, Arm India Vivek Sharma Managing Director, STMicroelectronics India
2	Introduction : Embedded Systems & beyond	10:15 AM - 11:00 AM IST	Dr. Manoj Kumar Director, System Research and Applications STMicroelectronics, India
3	Getting started with embedded essentials	11:00 AM – 11:45 AM IST	Salil Jain Staff Engineer, System, Research and Applications STMicroelectronics, India
4	Quiz Time	11:45 AM - 12:00 AM IST	Sridhar Ethiraj Sr. Field Application Engineer, Microcontrollers Division STMicroelectronics, India Suriya Gunasekaran, Operations Analyst, Arm Education
5	Evolutions in embedded platforms	12:00 AM - 1:00 PM IST	Vinay Kumar Thapliyal Technical Marketing Manager, Microcontrollers Division STMicroelectronics, India
6	Quiz Time	1:00 PM - 1:15 PM IST	Sridhar Ethiraj Sr. Field Application Engineer, Microcontrollers Division STMicroelectronics, India Suriya Gunasekaran, Operations Analyst, Arm Education
7	Arm Microcontroller Architectures	2:15 PM - 3:15 PM IST	David Brook, Principal Applications Engineer, Arm
8	Quiz Time	3:15 PM - 3:30 PM IST	Sridhar Ethiraj Sr. Field Application Engineer, Microcontrollers Division STMicroelectronics, India Suriya Gunasekaran, Operations Analyst, Arm Education
9	Applications and case studies - Arm Cortex-M	3:30 PM – 4:15 PM IST	Francois Botman, Principal Research Engineer, Arm
10	Q&A Session	4:15 PM - 4:30 PM IST	Vinay Kumar Thapliyal/ Sridhar Ethiraj STMicroelectronics, Indi

Day 2: Deep Dive into Embedded Systems

Date: 26-8-2021, Thursday

S.No	Topics	Time	Speakers
1	Microcontroller Peripherals: Superior and Innovative peripherals for smart applications	9:30 AM - 11:30 AM IST	Amit Kumar Sr. Staff Engineer, Microcontroller Division STMicroelectronics, India
2	Quiz Time	11:30 AM-11:45 AM IST	Sridhar Ethiraj Sr. Field Application Engineer, Microcontrollers Division STMicroelectronics, India Suriya Gunasekaran Operations Analyst Arm Education
3	Getting ready with your first application: Hardware and software ecosystems required for embedded systems	11:45 AM- 1:00 PM IST	Krishan Solanki Staff Engineer, Microcontrollers Division STMicroelectronics, India
	Lunch Break	1:00 PM - 2:00 PM IST	
	Continue with: Getting ready with your first application	2:00 PM - 2:45 PM IST	Krishan Solanki Staff Engineer, Microcontrollers Division STMicroelectronics, India
4	Quiz Time	2:45 PM - 3:00 PM IST	Sridhar Ethiraj Sr. Field Application Engineer, Microcontrollers Division STMicroelectronics, India Suriya Gunasekaran,Operations Analyst, Arm Education
5	Embedded applications : real-time case studies and demos	3:00 PM - 4:30 PM IST	Alok Mittal Sr. Group Manager, System, Research and Applications STMicroelectronics, India Nabarun Dasgupta Group Manager, System, Research and Applications STMicroelectronics, India
6	Q&A Session	4:30 PM - 4:45 PM IST	Vinay Kumar Thapliyal/ Sridhar Ethiraj STMicroelectronics, India
7	Ideathon Announcement	4:45 PM - 5:00 PM IST	

S.No	Topics	Time	Speakers
Day 3: Mastering Embedded Systems - Advancing with Technologies		
Date: 27-8-2021, Friday		
1	Introduction: Emerging Markets & Technologies	9:30 AM - 10:00 AM IST	Vinay Kumar Thapliyal Technical Marketing Manager, Microcontrollers Division STMicroelectronics, India
2	IoT - Introduction to IoT applications - Connectivity in IoT - Security needs in IoT	10:00 AM - 11:30 AM IST	Sridhar Ethiraj Sr. Field Application Engineer, Microcontrollers Division STMicroelectronics, India
3	Quiz Time	11:30 AM - 11:45 AM IST	Sridhar Ethiraj Sr. Field Application Engineer, Microcontrollers Division STMicroelectronics, India Suriya Gunasekaran, Operations Analyst, Arm Education
4	HMI (Human-Machine Interface) - Advanced MCUs for Graphics - TouchGFX: Advanced Graphics Tool	11:45 AM - 1:00 PM IST	Shubham Boharapi Tech Leader, Microcontrollers Division STMicroelectronics, India
5	Quiz Time	1:00 PM - 1:15 PM IST	Sridhar Ethiraj Sr. Field Application Engineer, Microcontrollers Division STMicroelectronics, India Suriya Gunasekaran, Operations Analyst, Arm Education
6	Edge AI - Intro to Edge AI - How to create your own Edge AI application using STM32Cube.AI tool	2:15 PM - 3:45 PM IST	Amit Kumar Sr. Staff Engineer, Microcontroller Division STMicroelectronics, India
7	Quiz Time	3:45 PM - 4:00 PM IST	Sridhar Ethiraj Sr. Field Application Engineer, Microcontrollers Division STMicroelectronics, India Suriya Gunasekaran, Operations Analyst, Arm Education
8	Q&A Session	4:00 PM - 4:15 PM IST	Vinay Kumar Thapliyal/ Sridhar Ethiraj STMicroelectronics, India
9	Feedback	4:15 PM - 4:30 PM IST	Suriya Gunasekaran, Operations Analyst, Arm Education
10	Ideathon Winners announcement and session closure	4:30 PM - 5:00 PM IST	Raunaque Mujeeb Quaiser Group Manager, System Research and Applications STMicroelectronics, India

Speakers of the various sessions that were held as part of the workshop

Vinay Kumar Thapliyal
Technical Marketing Manager, Microcontrollers Division STMicroelectronics, India

Vinay Kumar Thapaliyal is having more than 25 Years' experience in Semiconductor industry currently working with STMicroelectronics Pvt. Ltd since 17 years. He worked in various functions like Embedded Designs, Applications and Technical Marketing. He has vast international experience and worked on multiple projects for emerging markets in India, Middle-east & Latin America inside ST for Industrial, Consumer and Automotive segments. He is presently heading India Marketing and Applications Group of the General-Purpose Microcontrollers & RF products for Microcontrollers Division in STMicroelectronics. He is also participating from ST in key Indian Government Initiatives on Smart Cities, Smart Metering and Standardization

Shubham Boharapi
Tech Leader, Microcontrollers Division STMicroelectronics, India

Shubham is currently working as a Tech. Leader with STMicroelectronics and has an Industry experience of over ten years as a developer, project leader on electronics systems for multi-disciplinary domains (HW & SW). His main area of expertise are Microcontrollers of various core, Embedded Software, HMI and Graphics

Sridhar Ethiraj
Sr. Field Application Engineer, Microcontrollers Division STMicroelectronics, India

Sridhar Ethiraj is an Electrical & Electronics Engineer graduated from PSG College of Technology. He is working as Field Application Engineer (Microcontrollers) for last 18 Years. He is working with STMicroelectronics since 2011, supporting customer product design and development based on STM32 / STM8 Microcontrollers for distinct applications. Sridhar Ethiraj has rich working experience with Cortex-M Microcontrollers, H8 / H8S / H8SX / R8C / M16C / SH / 720 / 8051 based cores. He has lots of hands-on experience in working with different hardware debugger tools, IDE compilers and assemblers meant for 4Bit / 8Bit / 16Bit & 32Bit Microcontrollers.

Krishan Solankil
Staff Engineer, Microcontrollers Division STMicroelectronics, India

Krishan is working with STMicroelectronics India since last 10 years in Embedded Applications support team. Having more than 15 years of experience in Embedded design and support. Worked on different Micro controller core like ARM7, ARM CM0 to CM7, MSP430, 8051, PIC, AVR etc. Worked on Applications like IoT, BLE, NFC, Automotive, Motor Control, Inverter, Metering, Industrial and Home Automation and many more.

Amit Kumar
Sr. Staff Engineer,
Microcontroller
Division
STMicroelectronics,
India

Amit Joined ST in 2006 and currently working as Sr. Staff Engineer in Microcontroller Division, India. He has added a lot of hands-on experience by working on various applications in Embedded domains such as Smart Metering, RF, Motor Control, Automotive & Automation. His main fields of interest are Embedded Applications, 8/32-bit Microcontrollers, Microprocessors, ML, Low Power RF.

Francois Botman
Principal Research
Engineer
Arm Ltd

François is a Principal Research Engineer at Arm in Cambridge, with a specific focus on Cortex-M embedded processor architecture. He completed his PhD in low-power digital microelectronics in 2014, and subsequently worked in the aerospace industry then at Arm. His current role is a forward-looking study of emerging use-cases and implementation techniques, researching new technologies to enable and be leveraged in next-generation embedded processor designs. Most recently he has worked on DSP vector extensions, performance monitoring, debug enhancements for mutually distrustful software, and reliable and fault-tolerant computing.

David Brooke
Principal Application
Engineer, Arm Ltd

After graduating from Coventry University in 1982 with a Diploma in Electrical and Electronic Engineering David Brooke worked on many different electronic and embedded software projects until starting at Arm in 1996. While at Arm he has worked on development of a number of software and firmware products until he joined the support team in 2004 where he has worked in Team lead roles heading teams looking after development boards and advancing to his current job heading the team supporting Architecture Licensees for all profiles and architecture extensions (TrustZone, NEON, CCA).

As well as development and support through his career he is also a training lead and have presented over 180 training courses worldwide.
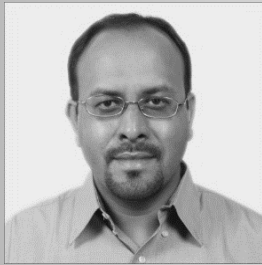
Alok Mittal
Group Manager, Group Manager, System, Research and Applications
STMicroelectronics, India

Alok Mittal is working with STMicroelectronics since 2001 and has Industry experience of over 26 years. He is B.E in Industrial Electronics and Postgraduate in Marketing Management. He has filed 8 patents, out of which 5 Patents are already Granted. Currently, he is holding the position of Senior Group Manager. He has written and contributed to several articles which were published in many Indian and International magazines. His main area of expertise are in Electronic Systems Development in the areas of IoT, Smart-Metering and Healthcare. Currently Alok Mittal is responsible for Bluetooth Mesh technology solution from STMicroelectronics.

Salil Jain
Staff Engineer,
Group Manager,
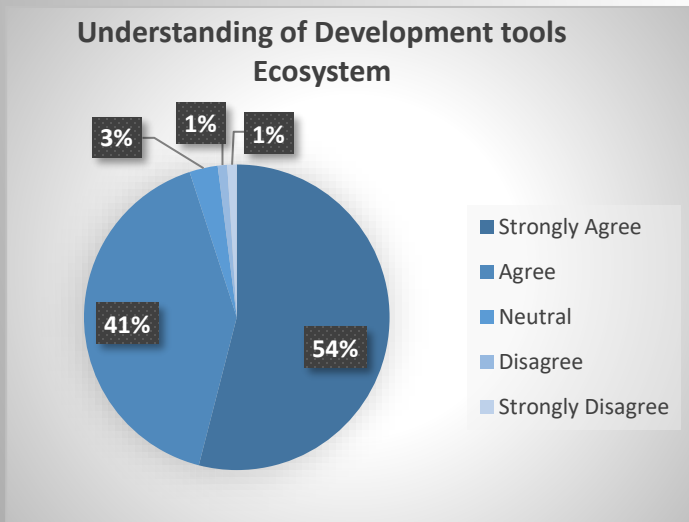System, Research
and Applications
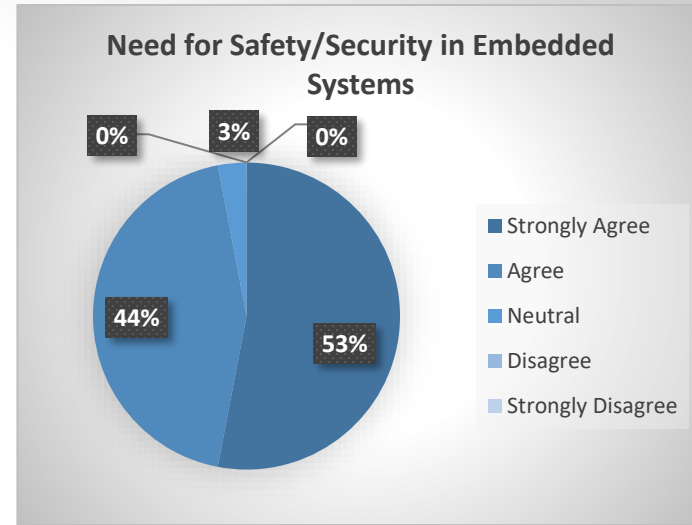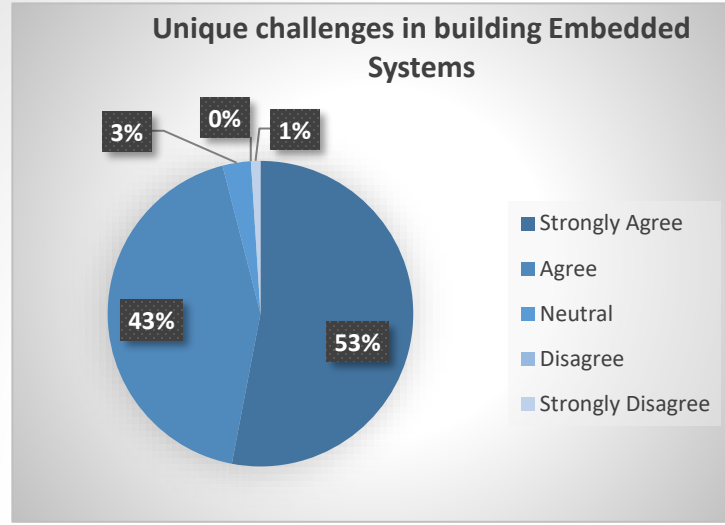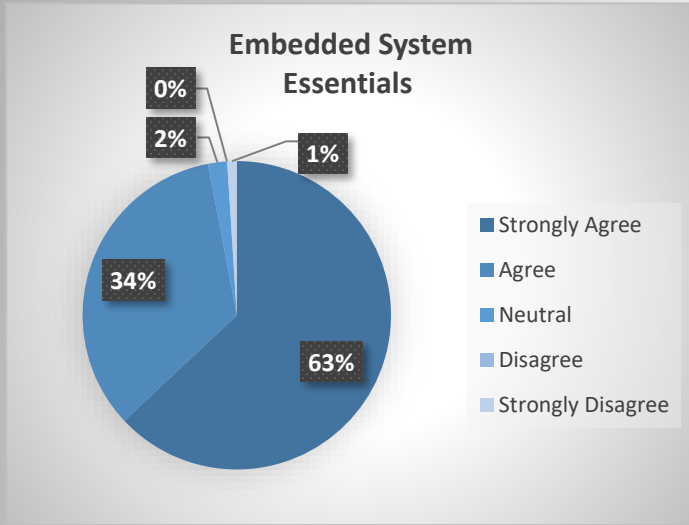STMicroelectronics
, India

Salil Jain is currently working as a Staff Engineer with STMicroelectronics, and has ten years of experience as a designer, architect, and project leader of electronics systems for multi-disciplinary domains (HW & SW). His main area of expertise are BLE Mesh, Power Line Communication, Metering and Healthcare. He has written several articles and papers in these fields. He is also the STM32 Microcontroller training member under e4i (Electronics For India) initiative. He is M.Tech

Nabarun Dasgupta
Group Manager,
Group Manager,
System, Research
and Applications
STMicroelectronics,
India

Nabarun Dasgupta is currently working as a Group manager with STMicroelectronics. He is with STMicroelectronics since 1999. With Overall 27years of Industry experience, he has expertise and interests in the areas of electronic systems design, Electric drives, Power Electronics, Industrial control, Digital communication, Embedded SW and Product management. He is inventor of two granted US patents. He received the B.E. degree from University College of Engineering, Osmania University in Electrical Engg. and M. Tech. in Industrial Drives (Electrical Engg.) from NIT Warangal. He also holds a PG Diploma in Business Management.

Dr. Manoj KUMAR
Director, System
Research and
Applications
STMicroelectron
ics, India

Dr. Kumar is working in STMicroelectronics for last 22 years and is currently managing the System Applications and Integration LAB of the System Research and Application Organization in India; providing with a worldwide mission to build and support reference designs and system solutions in the areas of Connectivity (BLE, Sub GHz, Power Line Communication), Metering, Motor Control, Power & Lighting and IoT. On top of his worldwide responsibility, he is driving the in-house incubation program for startups in STMicroelectronics India and is responsible for University Collaborations. He is driving ST India STEM initiative. He is also leading ST Partner Program in India with a mission to provide global visibility to Indian partner companies. He has been contributing and representing STMicroelectronics in Standardization bodies in the fields of M2M, Smart Cities and Industry 4.0. A few Smart City pilots demonstrating ST's technologies for energy efficiency, Sub-GHz, Power Line Communication and BLE mesh have been created under his leadership. He is based out of Greater Noida, India.

Feedback from participants:

Embedded System Essentials
- Strongly Agree: 63%
- Agree: 34%
- Neutral: 2%
- Disagree: 1%
- Strongly Disagree: 0%

Unique challenges in building Embedded Systems
- Strongly Agree: 53%
- Agree: 43%
- Neutral: 3%
- Disagree: 1%
- Strongly Disagree: 0%

Need for Safety/Security in Embedded Systems
- Strongly Agree: 53%
- Agree: 44%
- Neutral: 3%
- Disagree: 0%
- Strongly Disagree: 0%

Understanding of Development tools Ecosystem
- Strongly Agree: 54%
- Agree: 41%
- Neutral: 3%
- Disagree: 1%
- Strongly Disagree: 1%

640 participants of the workshop gave their feedback:

97% agree that the workshop has improved their level of expertise in Embedded System Essentials.

96% agree that the workshop has improved their level of expertise in Unique challenges in building Embedded Systems.
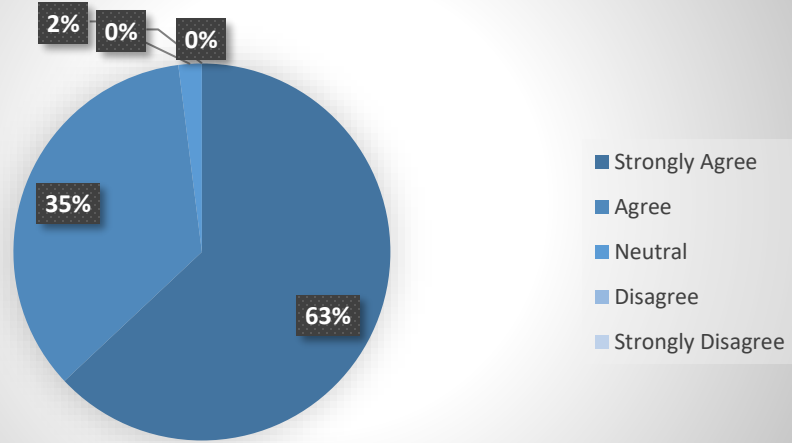
97% agree that the workshop has improved their level of expertise in Need for Safety/Security in Embedded Systems.

After attending the session, 98% agree that they have got more familiar with Arm architecture and want to learn more about it
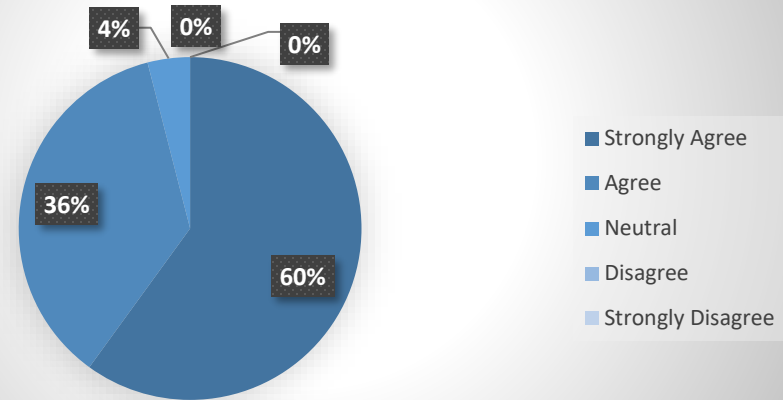
Based on FDP Workshop learnings , 96% agree that they are encouraged to initiate new projects with ST MCU's / Sensor / Connectivity products

Feedback from participants....

After attending the session, I have got more familiar with Arm architecture and want to learn more about it

2% | 0% | 0%
35%
63%

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

Based on FDP Workshop learnings , I am encouraged to initiate newprojects with ST MCU's / Sensor / Connectivity products

4% | 0% | 0%
36%
60%

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

After attending the session, 98% agree that they have got more familiar with Arm architecture and want to learn more about it

Based on FDP Workshop learnings , 96% agree that they are encouraged to initiate new projects with ST MCU's / Sensor / Connectivity products

Testimonials

- "I have got a better understanding of Embedded Systems. All of the sessions were best. Congratulations to the entire Arm and STM team. I look forward to more such sessions" Sachin Gajjar, Nirma University

- "its really an FDP with an industry driven approach. Excellent work, thanks for organizing such a wonderful and useful program" Dr. C. Stanly Felix, Coimbatore Institute of Technology

- "Got new ideas how to use Embedded Systems in different domain. Continue the same. Enjoyed and leant a lot from this Workshop" Harshitha Bhat, NMAMIT,NITTE

- All the sessions are very good and informative. I am expecting more such workshop from Arm and STM" Joshi Tarangkumar Mansukhbhai, B.H.Gardi College of Engineering Technology

- "The workshop has enhanced my level of thinking about the embedded systems and AI. We will be happy to see more sessions in future" Jitendra Kumar Singh, MSME Technology Centre IDTR Jamshedpur

- "Tour of D Vinci gallery was awesome" Avinash D Kale, Government Polytechnic, Ambad Dist, Jalna, Maharashtra

- "It was really good workshop with hands on and demos" Rajveer Kushaldev Shastri, Vidya Pratishthan's Kamalnayan Bajaj Institute of Engineering & Technology, Baramati

- "In this FDP we were able to get awareness about so many processors, sensors and different techniques used by industries and day to day life. Very nice session. Quizzes after each session is a nice approach for assessment" Neha Pandey, Govt. Polytechnic College Rajgarh

Ideathon: Evaluation team

Prof. Rajat Moona
Director
Indian Institute of Technology, Bhilai

Prof. Moona heads the Indian Institute of Technology, Bhilai (IIT Bhilai), which is one of the six new IITs established by the Ministry of Human Resource Development, Government of India. Prof. Moona is also a Professor of Computer Science at IIT Kanpur and has supervised several postgraduate theses. He along with his students and colleagues, has authored 10 patents, several research papers and books. He had been instrumental in defining applications such as smart card driving license, vehicle registration, e-passport, electronic toll collection, mobility card, etc. The research area of Prof. Rajat Moona spans over embedded computing, computer security, VLSI design and Operating Systems. In the past Prof. Moona was the Director Of the Centre for Development of Advanced Computing (C-DAC) in capacity of Director General. Prof. Moona is recipient of several awards and recognitions, including Indo-US Science and Technology Fellowship, Poonam and Prabhu Goel Chair Professorship, VASVIK Award for the year 2010, IESA Techno-visionary Award 2014, fellowship of Maharashtra Academy of Sciences 2015 and National award of Election Commission of India 2016 for the best electoral practices. Prof. Rajat Moona is an active member of the technical committee of Election Commission of India for EVMs and has been instrumental in defining the EVMs and VVPAT. He has also been instrumental in defining national voter service portal and national electoral search for the voters.

Satheesh Balasubramanian
Distinguished Engineer
Arm, India

Satheesh Balasubramanian is a Distinguished Engineer in the Physical Design Group (PDG) of Arm. He is based in Bangalore. Satheesh works on Signoff methodologies. He has been recently involved in developing methodologies for Aging, High Sigma signoff, designing for variability and low voltage signoff.

Suraj Kamat
Senior Principal Engineer &
DV Architect
Arm, India

Suraj Kamat is a Senior Principal Engineer & DV Architect in CPU Group for Arm. He is based in Bangalore. Suraj works on design and development of CPU verification methodologies and on enabling Machine learning for verification. His interests are cpu verification, data analytics and machine learning applications.

Raunaque Mujeeb Quaiser
Group Manager, System
Research and Applications
STMicroelectronics, India

Raunaque is currently working with STMicroelectronics and holds the position of Group Manager. He has total experience of 18 years in Semiconductor Industry. He has done B. Tech (Computer Engineering) from AMU and MBA from IIM Lucknow. His key responsibilities include Electronic System Development on different technologies for IoT, Smart Cities, and Smart Home. He is managing and coordinating the Startup Incubation Centre at STMicroelectronics, India. His areas of interests are Connectivity Technologies, Mobile Applications and System Development and System Integration.

Varun Bansal
Business Head – India
Regions (North & South),
STMicroelectronics

Varun Bansal, presently heading Business development for India regions in STMicroelectronics India, having vast experience in Semiconductor Sales & Marketing, Business Development & Application Support, Design & Development. A proven track record of developing, growing and managing successfully new business verticals & negotiating large deals, contracts/agreements. Have taken on various Leadership roles in STMicroelectronics, including Head - Automotive BU and Industrial Segment, India & SAARC.

Vishal Goyal
Technical Marketing
Manager ASEAN, Australia,
New Zealand, and India
STMicroelectronics

Vishal Goyal is a Group Technical Marketing Manager for STMicroelectronics' RF and Analog custom products in ASEAN, Australia, New Zealand, and India, and has held this position since 2015.

Goyal started his career at STMicroelectronics India in 2002 as a Design Engineer in Central Research and Development. In 2007, he joined the Marketing department and was responsible for Analog products for India. Goyal was appointed Senior Marketing Manager of Analog, MEMS, and Sensors for India market in 2013, and his mandate was expanded to include ASEAN, Australia, and New Zealand in 2015. Goyal actively supports customers on the full IoT product-development cycle and helps develop the ST ecosystem in collaboration with customers, ODMs, design houses, EMS', and distributors.Goyal has published more than 30 technical articles around the world.

Vishal Goyal was born in India in 1979 and graduated from Indian Institute of Technology Roorkee, India and MBA from Indian Institute of Management Lucknow, India.

Quiz Winners

Prof. Jithin Isaac
Assistant Professor
Don Bosco Institute of Technology

Dr. Prashant P. Bartakke
Associate Professor
College of Engineering, Pune

Dr. Sachin Gajjar
Associate Professor
Nirma University

Mr. Parag Narkhede
Assistant Professor
Symbiosis Institute of Technology

Dr. Vrajesh D. Maheta
Associate Professor
Terna Engineering College

Dr Shaik Fayaz Ahamed
Associate Professor
Velagapudi Ramakrishna Siddhartha Engineering College

Dr. Charanjeet Singh
Assistant Professor
Gujranwala Guru Nanak Institute of Management and Technology

Prof. Jisha Kuruvilla P
Associate Professor
Mar Athanasius College of Engineering

Mr. Jayamani S
Assistant Professor
K.S.Rangasamy College of Technology

Mr. Raguvaran K.
Assistant Professor
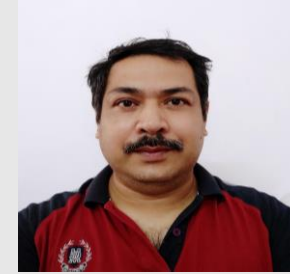K.S.Rangasamy College of Technology

Quiz Winners

Mr. Sujoy Mondal
Assistant Professor
RCC Institute of Information Technology

Dr Badari Nath K
Assistant Professor
R.V.College Of Engineering

Mr. Rajavenkatesan.T
Assistant Professor
K.S.Rangasamy College of Technology

Mr. Ravi Prakash Pandey
Assistant Professor
Institute of Engineering and Technology

Mr. Akhil A. Balakrishnan
Assistant Professor
Jyothi Engineering College

Ms. Mithila Zodape
Assistant professor
Electrical Engineering
GCET Engineering College

Dr. Surekha Paneerselvam
Asst. Professor (Sr. Gr)
Amrita School of Engineering

Dr. V. Prakash
Associate Professor
Thiagarajar College of Engineering

Prof. Sameer Mansuri
Assistant Professor
Government Engineering college

Er. Agi Joseph George
Assistant Professor
Amal Jyothi College of Engineering

Quiz Winners

Dr. K Selvakumar
School of Electrical Engineering
Vellore Institute of Technology

Ideathon Winners

Mr. Jayanta Biswas
Associate Professor
CHRIST (Deemed to be University)

Dr. Pankaj H. Chandankhede
Assistant Professor
G.H. Raisoni College of
Engineering

Dr. Sachin Gajjar
Associate Professor
Nirma University

Ideathon Winners

Prof.Umesh Pinjarkar
Assistant Professor
Saraswati College of
Engineering

Mr. Anand Raj S N
Assistant Professor
JNN College of Engineering

Prof. Amit Kumar K
Assistant Professor
PES Institute of Technology
and Management

Mr. Vinoj P G
Assistant Professor
SCMS School of Engineering
and Technology

K.Lalitha
Assistant Professor
SRM institute of Science and
Technology

Dr Georgina Binoy Joseph
Associate Professor
Toc H Institute of Science and
Technology

Dr. P.Sathish
Assistant Professor
Chaitanya Bharathi Institute of
Technology

Prof. Sambit Prasad Kar
Assistant Professor
KIIT University

R.Anirudh Reddy
Assistant Professor
B.V.Raju Institute of
Technology

Mr. Sebin Sunny P
Assistant Professor
Sreepathy Institute of
Management And Technology

Ideathon Winners

Dr. C. Ponmani
Professor (CAS)
Government College of
Engineering - Tirunelveli

Dr. K.K. Anil Kumar
Professor & Head
Kumaraguru College of
Technology

Dr. Timothy Malche
Assistant Professor
Manipal University Jaipur

B.Shunmugapriya
Assistant Professor
National Engineering College

Prof. Atul Nigavekar
Associate Professor
KIT'S College of Engineering

Soorya Krishna K
Professor
Srinivas Institute of Technology

Dr. G. Karthick Kumar Reddy
Assistant Professor
Rajiv Gandhi University of
Knowledge Technologies-AP

Prof.R.M.Thamilselvi
Associate Professor
Pavai College of Technology

I.Jeya Daisy
Assistant Professor II
Kumaraguru College of
Technology

Rajesh C.B
Assistant Professor(Sr.Gr.)
Amrita School of Engineering

Ideathon Winners

Mr. Suparba Tapna
Assistant Professor
Durgapur Institute of Advanced Technology & Management

Dr. B. Banu Rekha
Associate Professor
PSG College of Technology

Prof. Jadhav Usha Annarao
Assistant Professor
D. Y. Patil College of Engineering

Dr. Bipin Chandra Mandi
Assistant Professor
IIIT Naya Raipur

M. Devaki
Assistant Professor
K. S. Rangasamy College of Technology

Dr. Shruti Bhargava Choubey
Associate Professor
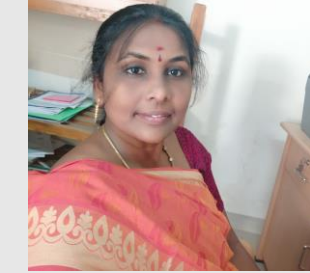Sreenidhi Institute of Science and Technology

Dr.K.Rajalakshmi
Associate Professor
PSG College of Technology

Ms.Hemashree Bordoloi
Assistant Professor (Sr)
Don Bosco College of Engineering and Technology

Prof. Himanshu Rakholiya
Assistant Professor
Shree Swami Atmanand Saraswati Institute of Technology

R. Devi
Assistant Professor
Government College of Technology