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# ISA-B KONNEKT

By the Automation Professionals. For the Automation Professionals

Newsletter



The International Society of Automation (ISA) is a non-profit professional association founded in 1945 to create a better world through automation. ISA advances technical competence by connecting the automation community to achieve operational excellence. The organization develops widely-used global standards; certifies industry professionals; provides education and training; publishes books and technical articles; hosts conferences and exhibits; and provides networking and career development programs for its members and customers around the world.

ISA Bangalore section (ISA-B) is one of the 9 active sections of District 14, which comprises of India, Japan, Singapore, Korea & Malaysia having a total membership of about 1200 members. With a total membership of over 200 members, ISA – Bangalore section has been consistently supporting and promoting Automation across Industry and Academia.

ISA Bangalore section works towards -

1. Keeping industry updated on latest technology.
2. Bridging the industry-institute gap – Mentoring 14 student sections enables faculty and students alike to maintain close interaction with industry and grow professionally.

## President's Message



**Mr. K Srinath**  
**President – ISAB**

Dear Members & Professionals,

It is my pleasure to connect with you all through this first quarter newsletter of my presidential term 2022-23. First, it is an honour for me to be the President of ISA Bangalore Section and serve the prestigious International Society of Automation.

Happy to see the challenging times left behind as the pandemic situation across the globe is easing. This situation allowing us to be able to meet people in person and some of our programs are now in physical mode. We are still taking a cautious approach with some of our programs continue in virtual mode and we hope in future more and more programs can be held in person.

We have a very supportive and committed Executive Council (EC), which has started efforts to execute our ISA strategic priorities, in the areas of Industry Reach and Awareness, Member Development and Engagement, Technical Education and Certification & Leadership and Business Skill Development

We have also added a few new and special initiatives this year and created special chairs to oversee activities related to

- Carbon Lead foundation partnership
- Young Professionals
- Cyber Security
- Entrepreneurship
- Industry connect

Few of these initiatives have kicked off with their activities. One of the major focus of ISAB this year is to strengthen our own leadership team and pipeline. Towards that direction, we have inducted many new members into Executive council and our EC Chairs are well empowered for undertaking independent activities and for execution of the strategy, working with society members. Members are also encouraged to volunteer to any areas of their interest by reaching to the respective EC Chairs.

I and CS Prakash (Delegate) had an opportunity to be part of the District Leadership meeting of APAC District held on 20-21<sup>st</sup> Aug'22 at Lonavala (hosted by ISA Maharashtra Section) and meet with Mr Carlos Mandolesi, President ISA and network with other leaders of various APAC sections.

Some of you had participated in these meeting which was also open for virtual participation and we had a lot of take aways.

For the first time, ISA Bangalore were supporting partner for Indian Manufacturing Show 2022 (IMS 2022). ISA Bangalore had a Pavilion (84sq meters) in this show with the support of 8 partner organization (Agraj Automation, Anscer Robotics, ATI Motors, Axcend, IC Pro, Mac, Modelicon, Strategi Automation) and showcased multiple technologies for the benefit of users, like Autonomous Mobile Robots, AR, VR, Cobots, IIoT, Robots, Smart Machines, Manufacturing Operations Software, AI Vision etc. The outcome was very encouraging as the image and brand of ISAB spread to the visibility of the industry. Based on this, Indian Machine Tools Manufacturers Association (IMTMA) has Invited us to setup a similar pavilion in the IMTEX 2023, Digital Manufacturing Exhibition to be held in 19-23 Jan'23. This is under consideration.

Also, ISAB along with Carbon Leadership Forum and BMS collage of engineering conducted an event “Building the Future: Sustainability & Automation for carbon Neutral Buildings” on 20<sup>th</sup> Aug'22.

Apart from these major events, there were also multiple tech talks and programs held.

In closing, I wish you and your family continued safety, wellness and happiness and I look forward to continuing this dialog. ISA is a great professional forum to connect, contribute and develop and hence look forward to your engagement and continued support. We would welcome your feedback to [president@isabangalore.org](mailto:president@isabangalore.org)

## Editor's Message



**KUMUDA. S**  
**Newsletter editor and Publications,**  
**Senior Member, ISA Bangalore Section**  
**ISA Membership No: 000033659369**

Dear Readers,

We hereby bring out our First issue of our newsletter ISA-Bangalore sections KONNECT for the year 2022-23. This newsletter lets you to know about the ISA-Bangalore section activities.

Under able leadership of our current ISA-B president Mr.K.Srinath, support and guidance from Senior ISA members, EC-team and the entire ISA-B section members, we could accomplish many of our events successfully.

The current issues cover a detailed report from various ISA-Bangalore students' sections, four articles on recent technology four tech talks, list of new ISA members, events conducted by ISAB, cross words and many more.

Check out on four interesting articles from ISAB professionals and student's members. One article is from Mr. Rajshekhar Uchil a senior member and Marketing chair of ISAB on "An Introduction to Building Automation system division", which gives a bird view of Building automation systems, Second article is from another ISAB senior member Mr. Binoy Kamath on " Ethernet-APL", a latest technology which enables unhindered communication with various field devices within process area, third article is from Mr. Anil Kumar H.P who is also a ISAB senior member, a very insightful article on " Why do we need Automation? ", and Last Fourth article is by a student Mr. Karthik Warriar from NIT-Trichy Student section on "Control Strategies for the Trajectory Tracking of Quadcopters", sharing his knowledge on the project carried out by him recently during his PG programme.

For our ISA-Bangalore newsletter - "ISA B KONNEKT", we would like to invite technical articles/ case studies related to Industrial automation, Instrumentation, process control etc., any latest technology related to automation areas.

We welcome your articles regularly. It is an opportunity to brush up your writing skills and share something you are inspired by or experienced in. Do also send your brief profile and photo with the article. We will acknowledge authors generously.

A huge thanks to all the persons who guided me and those who contributed for the contents of this newsletter, namely Mr. K.Srinath, Mr. Rajshekar Uchil, Ms. Missy dash and all EC members.

I would also like to thank all ISAB students section members for sharing their activities conducted in their respective colleges in association with ISAB. I would also like to thank our young ISA-B student section members - Vidya Vijay Bhat (Membership ID: 0034009613) and Divya Singh (Membership ID: 0034010574) for their everlasting support and contribution for the successful release of this first issue.

Lastly, I hope all of you relish our First issue and feel free to let us know if there are any topics you would like to see covered in our future issues to come. Do send in your comments/suggestions to [isabkconnect@gmail.com](mailto:isabkconnect@gmail.com).



Vidya Vijay Bhat  
Membership ID: 0034009613



Divya Singh  
Membership ID: 0034010574

# ISAB Articles

## 1. *An Introduction to Building Automation System Division*



**Mr. Rajshekhar Uchil**  
Senior Member and marketing chair of ISAB

**ABSTRACT:** Building Automation Systems Division (also known as BASDIV) fastest growing division of ISA aimed at helping our members grow professionally and technically. The primary goals of BASDIV are to provide clarity around these ever-evolving spaces, develop useful technical content of building automation, develop standardized approaches to solve critical problems, and provide a networking and collaboration platform for its professionals. By bringing together community of experts in BAS domain, BASDIV aims to evaluate the trends and best practices regularly.

Building automation systems (BAS) is a distributed control system to monitor & control various building services facilitating efficient building operation and maintenance. This also provides centralized visualization of operational & MIS data. Building automation describes the advanced functionality provided by the control system in a building using latest technology advancements like IoT, Networking & Communications, Cloud, AI etc.

This article gives a brief about the ISA's BAS division and the proposed division and technical Activities.

### LEADERS



**Rathina Kumar Balasundaram**  
Director



**SHESHAGIRI NAYAK**  
Director-elect



**Edwin Armistead**  
Board Member



**Jeff Leverton**  
Board Member



**Swati Madhe**  
Board Member



**Philip Rosen**  
Secretary



**Kanishk Rai**  
Program Chair

Read the complete article here: [Link for the Article - An Introduction to ISA BAS Division](#)



# ISAB Articles

## 2. *Ethernet - APL*



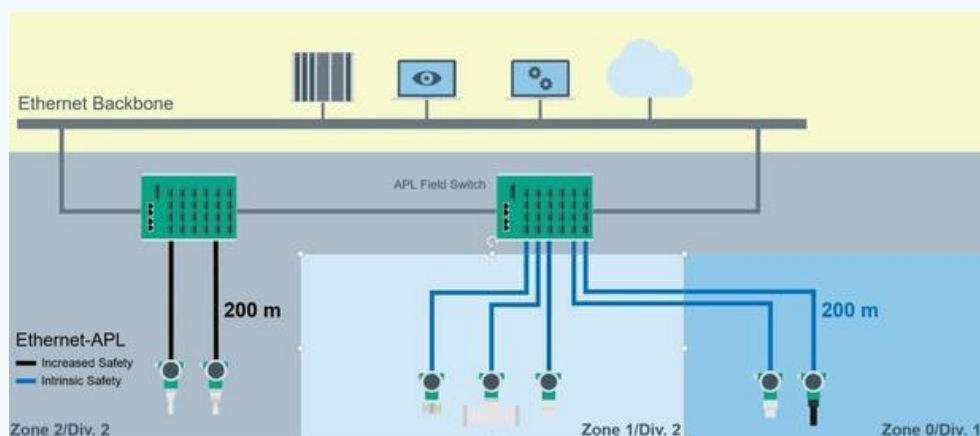
**Mr. Binoy Kamath**  
Senior Member of ISAB,

**ABSTRACT:** Ethernet-APL is the key to a new type of flat communication infrastructure in the process area. It stands in contrast to the hierarchically structured system environments of today's plants and allows unhindered access to all process data down to each individual field device. In addition, Ethernet-APL field devices and other infrastructure components allow data access fully independent of the running process and are also able to communicate directly with each other. Process data are therefore available without restriction. Big Data applications can draw on the full potential and no longer fail due insufficient availability of data.

The impetus for the development of Ethernet-APL was essentially given by two organizations. The Open Process Automation Forum was focused on a completely new system architecture for the process industry. The Namur Open Architecture (NOA), on the other hand, was looking for ways to make process data from the automation system usable for the purposes of plant maintenance and optimization without affecting the ongoing process flow.

The vision of both initiatives included a solution that would not require any gateways between individual networks or fieldbuses.

This article gives a brief about Ethernet for process automation.



Read the complete article here: [Link for the Article - Ethernet-APL](#)

## ISAB Articles

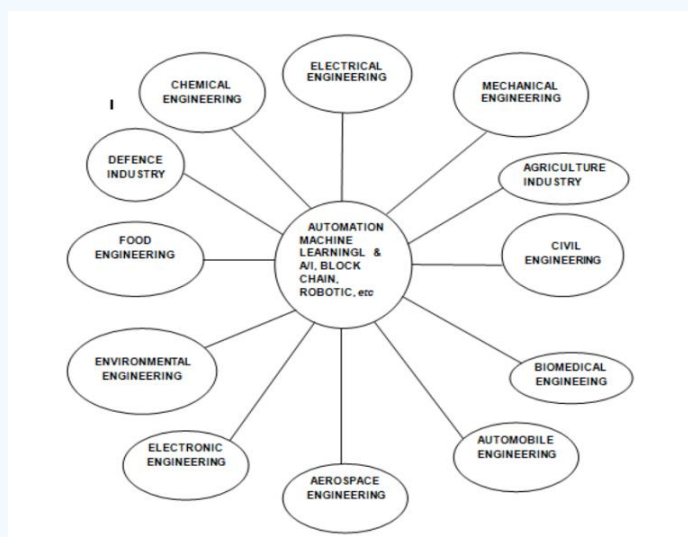
### 3. *Why do we need Automation?*



**Mr. Anil Kumar H P**  
**Senior Member of ISAB**

**ABSTRACT:** With Industrial revaluation and rapid growth in Automation, Digitization, Artificial intelligence & Machine learning, Block chain, Virtual reality, Cloud computing, IOT, Big data, Robotics etc. Amalgamation of all branches of Engineering is good or focusing deeply on one subject?

Acquiring basic knowledge of Industry 4.0, Automation, AI and its application is necessity of the day, not only for Engineering stream, it holds good for many other non-technical professions. Today almost all kind of Industries are modernizing their plant by adopting latest automation technology. Their Process or machines Considered outdated if they do not do so. This approach is not to reduce man power but to improve quality and avoid disasters due to mistake of human negligence.



Read the complete article here: [Link for the Article - Why do we need Automation?](#)



# ISAB Articles

## 4. Control Strategies for The Trajectory Tracking of Quadcopters



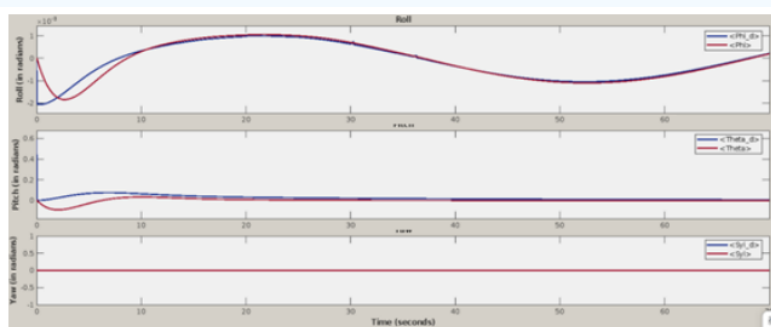
Mr. Karthik R Warriar

**ABSTRACT:** The last few decades have witnessed the UAVs (informally called drones) participating in various military activities for surveillance, airstrikes, search & rescue operations, etc. And in recent years, UAVs have found profound applications in civilian domains such as atmospheric monitoring, traffic monitoring, resource exploration, asset inspection, forest fire prevention, delivering payloads, and agriculture-based applications.

A Quadcopter is a drone with four rotors operating on the VTOL scheme. Position and orientation control are crucial while handling internal and external disturbances.

The basic approach used in the project is to divide the control strategy implementation into 4 different channels

In this article, an exploration into active and robust control strategies for trajectory tracking to improve the Closed loop Performance and the disturbance handling of the Quadcopter is done,



Read the complete article here: [Link for the Article - Control Strategies for the Trajectory Tracking of Quadcopters](#)

# ISAB Events

## 1. AGM 2022-2023

### Agenda for the AGM

**Date of AGM:** 18<sup>th</sup> June 2022

**Venue:** Southern Star Hotel, 40/2, Lavelle Road, Shanthala Nagar, Ashok Nagar, Bengaluru, Karnataka 560001

**Registration:**

10:45 -11:00 Registration of delegates (*Ms. Poornima*)

**Welcome and Annual Update:**

11:00 – 11:10 Welcome Address by 2021-22 President (*Mr.C.S Prakash*)

11:10 – 11:25 Presentation of 2021-22 Annual Report (*Mr.Prasanna Inamdar*)

11:25 – 11:45 Presentation of 2021-22 Audited Accounts (*Mr.Badrinath*)

11:45 – 12:00 Adoption of the Annual Report and Audited Accounts by Members

**Election and Hand-over:**

12:00– 12:10 Handing over by outgoing President, Mr.C.S Prakash to Incoming President of year 2022-23

Mr.K.Srinath

12:10 – 12:30 Election & Announcement of the new EC Members for 2022-2023

(*Returning Officer: Mr. Renukaprasad*)

- Address by incoming President
- Induction and introduction of new elected EC Members
- Address by Trust Chairman

12:30 – 12:35 Appointment of 2022-23 Auditors (*2021-22 President*)

12:35 – 12:40 Appointment of 2022-23 Administrative Officer (*2021-22 President*)

**Suggestions and Discussion with Members:**

12:40 – 12:50 Resolution, if any. (To be sent to Secretary with a copy to Administrative Officer by 16-Jun-2022 Thursday)

12:50– 12:55 Discuss any other subject with the permission of the Chair.

12:55 – 13:00 Update of ISA (HQ) Update – Mr. Rajesh Rathi - ISA (HQ) EC Member

13:00 – 13:10 Vote of Thanks- **The New Secretary.**

*Click here to read the complete AGM report: [Link for AGM Report](#)*

**New EC Team:****EC 2022-2023 Core Team**

Position	Name
Chairman of the Trust	Ram Kerur
President*	Srinath K
Immediate Past President	CS Prakash
President-Elect*	Shankar Balakrishnan
Treasurer*	Girish Ayya
Secretary*	Ravi Balakrishnan

*\*Elected-Position*

<b>Section-Division Liaison</b>	Rajshekar Uchil
<b>Delegate</b>	CS Prakash
<b>Alternative Delegate</b>	Shankar Balakrishnan
<b>Finance Committee</b>	Treasurer, Secretary, President, Past President, Member of Trust (Venkatapathy SR)
<b>Administrative Officer</b>	Ms Poornima

**EC 2022-2023 Committees**

Committee	Chair	Team	Mentor
Member	Missy Dash	Veerendra Patil, Sooraj Surendran	Ravi Balakrishnan
Program	Albin Majaly	Rajashekar Uchil, Kumuda S, JohnKingsley	T R Ravishankar
Marketing / ISA Connect	Rajshekar Uchil	Albin Majaly, Kumuda S, John Kingsley, Binoy Kamath	
Publication & New Letter	Kumuda S		
Student & Education (Academy)	Dr Veena Hegde	Prof Umesh MV (Student Section Liaison), Dr Jayesh Barve, Dhruv Palrecha, Dr Suresh M, Dr Santosh Desai, Prasanna Inamdar	Venkatapathy SR
Training & Education (Professionals)	R Srihari Raghavan	Umashankar, Girish Ayya, Dr. Suresh M, Rajeev Joshi	CS Prakash
Standards & Practices	GS Renukaprasad		Sukumaran
Honors & Awards	Jayesh Barve	Shankar Balakrishnan	
Web Master/ Digital Advisor	CS Prakash	Kumuda S, Prasanna Inamdar	

## EC 2022-2023 New Initiatives Committee

Committee	Chair	Team	Mentor
Carbon Lead Foundation (CLF)	T R Ravishankar	Ram Kerur, Dr Jayesh Barve, Rajashekar Uchil	
Young Professionals (YP)	Siddharth	Albin Majaly, Abhirath, Dhruv	Krishna Pulliyur
Cyber-Security (CS)	John Kingsley	Shaktikumar Manohar, Shiv Kataria, Srihari Raghavan, Manjunath Hiregange, TR Ravishankar, Govinda Nevara	
Entrepreneurship (EP)	Dr Sunil Shah	Jasir Sabri, Anil Kumar HP, Gautam Shenoy	Renukaprasad Belgur
Industry Connect (IC)	Anand Jadi	Veerendra Patil, T R Ravishankar, Ms. Priya Srivastava, Anish Mitra	

# ISAB Events

## 2. *DLC Meeting Report*

ISA Asia Pacific District Leaders Council Annual Meeting 2022 was held on August 20<sup>th</sup> and 21<sup>st</sup> 2022 at Diwatel Grande Resort, Lonavala with the chairperson Ms.Sujata Tilak.

### **Day1-20<sup>th</sup> August 2022:**

Mr. Dattatray Sawant representing the ISAM as part of the organizer and Mr. B Sai Ramesh DVP (Elect) welcomed all the section leaders, section representatives and district leaders including the ISA President Mr. Carlos Mandolesi, to the first in person DLC after the COVID restrictions and after the formation of APAC district. DVP(E) also introduced the brief agenda of the DLC2022 to the gathering.

Opening remarks was given by Ms.Sujata Tilak by welcoming all the participants and indicated that for the DLC 2022, the each section was provided with different topic of common interest to have a healthy discussions in the forum instead of the usual section updates. All the section leaders, section representatives and district leaders and the special invitees introduced themselves.

As part of the DLC, the winners of ISA Celebrating Excellence Awards, Mr. H S Pansare and Dr. Uday Sheorey were felicitated by Mr. Carlos Mandolesi – President, ISA.

As section health is essential, Ms Tilak introduced the topic & discussed various strategies to maintain section health as:

- i. Encouraging vibrant leadership
- ii. Ensuring efficient administration
- iii. Improving member engagement
- iv. Encouraging members to use ISA Connect
- v. Passing of the Baton – developing new leaders

Mr. Mahesh and Mr. Ashish Manchanda from ISA Delhi Section delivered the presentation on various aspects of training – technical and administrative training needs of ISA members and those necessary to be good leader and to develop their professional career.

Ms. Tilak presented the current status of ISA APAC Student sections and challenges to run the student sections. All the student section representatives participated actively in the discussion and it was also actively discussed among the participants including Mr. Carlos Mandolesi. He also indicated that the focus of ISA HQ is to support the student sections as they are the future leaders of ISA.

Mr. Rajesh Rathi presented Rationalizing Cost of ISA Trainings and made the delegates aware about the efforts APAC District has been taking to make the ISA trainings more affordable to the masses.

**Day2-21<sup>st</sup> August 2022:**

Mr. Ramaiah presented overview of the Section Operating Manual. These included Operations, Governance, Engagement, Activities, Marketing and Communications, Leader Resources.

He also urged all members to go through various ISA weblinks to learn about ISA Section Operating manuals and policy to establish and maintain sections.

Mr. Carlos in his speech to the audience spoke about aligning the section's goals with those of the ISA. He also demonstrated how its status (ISA Goals) are visible to all members in ISA Connect site.

He advised all members to visit section community page at least once a month.

He has also indicated that the member satisfaction survey has to be popularized to ensure that the needs of the members are available to the sections for addressing the latest topics.

One of the important messages he gave in his speech to all section leaders was to increase the “Satisfaction Index” of all ISA members of their respective sections.

Following were the presentations by various ISA section across India like ISA-Pune, ISA-Maharashtra, ISA-Bangalore.

Mr. Srinath president of ISA-Bangalore along with past president Mr. C S Prakash, elaborated about several options available with members to engage with ISA on various levels. There are opportunities available on several global committees and task forces. There are short term, long term and quick task appointments available

Mr. Jagdish Shukla mentioned some of the important initiatives being taken by ISA.

One of the recommendations to the board was to reduce the age criteria for “ISA Life Member”, which was welcomed by all.

Towards engagement of young professionals Shridhar Kulkarni through his presentation urged all section leaders to:

- i) Recruit YP and its leader
- ii) Encourage student members to take up free professional membership upgrade, and enroll as YP during this upgrade.
- iii) Make use of resources / guide in ISA for YP.

Day-2 was wrapped up with Vote of Thanks delivered by Vikas Anwekar.





# ISAB Events

## 3. *India Manufacturing Show (IMS) 2022*

**ISA Bangalore Section at the IMS Show held at BIEC, Bengaluru from 15/9/22 to 17/9/22**

ISA Bangalore participated in the IMS 2022 show at Bengaluru with the objective of gaining greater visibility among the Professionals in the Automation community. Automation Industry players engaged in the field of Robotics, AMR, Digital Twins, AR displayed contemporary Technologies in the ISA Bangalore pavilion which was the third largest space for exhibitors in the venue.



### ISA Pavilion Exhibitors





### Discussion on participation in future



Impressed by our Pavilion and the Technologies showcased during the event IMTMA had extended an invitation for the forthcoming IMTEX exhibition. Industry 4.0 connecting all the associated technologies has been suggested as a theme in the space proposed for ISA Bangalore.



## With the Exhibitors Team





**International Society of Automation**  
Bangalore Section

5th  
**IMS 2022**  
INDIA MANUFACTURING SHOW

Supported By





**Meet us to see IoT, Automation and Robotics in Action!**





Please Visit us at ISA Bangalore Pavilion - Hall 1, Stall No-H1C11 from 15th to 17th September 2022 at BIEC-Bangalore International Exhibition Centre, Tumkur Road Bengaluru

## ISAB Events

### 4. *ISAB - CLF Bangalore and ISA Building Automation Division workshop*

In the thrust towards a confluence of automation and sustainability, ISA Bangalore and CLF Bengaluru with support from the ISA Building Automation Division held its first workshop “**Building the Future: Sustainability & Automation for Carbon Neutral Buildings**”, on 20<sup>th</sup> August 2022 which was hosted by the B.M.S College of Engineering, Bengaluru.

The main agenda of this workshop is to create awareness among the building architects, designers, real estate developers, civil engineers, building automation consultants, OEM's, integrators, and research community about state-of-the-art and emerging technology trends related to Carbon Neutral Buildings, Green Buildings, Building Automation, IIOT, Digital Twin, AI/ML, Energy Optimization, Sustainable Growth & Infrastructure. Setting the stage for the next significant event targeting policymakers to help create a format for evolved Governance Policy/Building Codes aligned towards Carbon Neutral Cities.

The Workshop brought together automation engineers Consultants End users civil engineers and architects for the first of its kind workshop

The workshop began with the invocation and a welcome speech by the Dr. S.Muralidhara. Principal of B.M.S College of Engineering. The opening remarks were given by an automation Professional Mr. TR Ravishankar, former President ISA Bangalore and Mr. Ratan Bala, Director of ISA Building Automation Division.

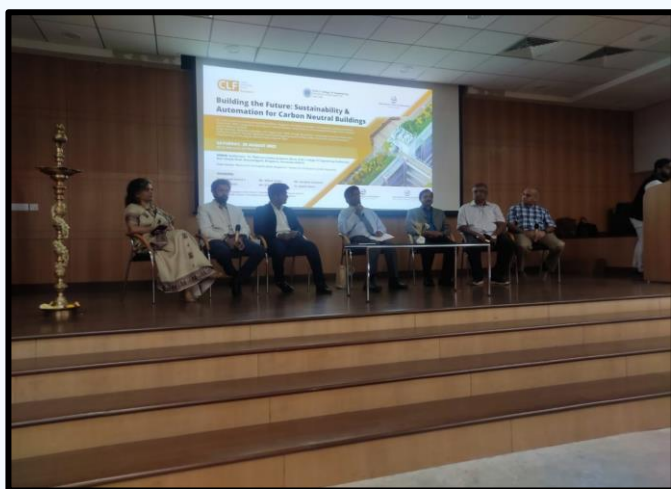
The conference being in a hybrid mode we had Session 1 with three fascinating talks on “**Buildings: Today & Tomorrow - The Net Zero Journey**”, by Dr. Kanwal of CLF, followed by **Future of Buildings** by Mr. Sandeep Goswami and **Digital Built Environment** by Mr. Nilesh Jadhav.

Session-II of the workshop encompassed following four talks from experts from Building Automation division- ISA.

- A. “**Building Management Systems the Way Forward**”, by Ram Kerur, ISA Bangalore Trust Chairman.
- B. “**Role of Building Energy Efficiency**” by Dr Uma Rajarathnam, Enzen Consulting
- C. “**Smart Building and Campus**”, by Mr, Chandramouli and Mr. Raghu Kiran, Robert Bosch
- D. “**Buildings and Infra Management - A Facility Management Perspective**”, by Mr. Vighnesh Sundaram, CBRE

Concluding the Workshop was a fascinating panel discussion on “Future of Buildings & Infra for Carbon Neutral World”, Chaired by Mr. Ratan Bala with participants Mr. Chandramouli - Robert Bosch (In lieu of Mr. Sanjeev Joshi - Experion Builders), Dr. Sunil Shah - Modelicon, Mr. Anand Jadi - ITC, Dr. Kanwal - CLF and Mr. Abhilash, ECB.

The program concluded with a summary by Dr. Jayesh Barve and a vote of thanks by Mr. Rajashekhar Uchil. ISAB and CLF along with the ISA Building Automation Division are looking at taking this partnership forward with more activities in the coming future.





# ISAB Tech Talks

## ISA-B Tech-Talk 1

### 3D LIDARS: The Next Big thing in AMRs

Topic	"3D LIDARS: The Next Big thing in AMRs"
Speaker	Mr. Saurabh Chandra
Date	16/07/2022
Time	4:00PM (IST)
Platform	Microsoft Teams


**ISA BANGALORE SECTION**  
**TECH TALK - TT0122**

## 3D LIDARS: THE NEXT BIG THING IN AMR'S

Conventional AGVs were line followers who came with their limitations of complex infrastructure that was inflexible. Newer AMRs added 2D Lidars and got rid of lines but still had many limitations of flooring, the density of features, and being restricted to indoors only. The path opened by public road autonomy with 3D Lidars is the next wave for industrial AMRs. In this talk, we will see how 3D Lidars outperform 2D and what technical design choices the AMRs need to make to adopt this technology.



**Speaker Profile:**



**Saurabh Chandra**  
CEO, Ati Motors

Saurabh is a technology entrepreneur based in Bangalore. He is currently a founder and CEO at Ati Motors since 2017, making a fully autonomous electric cargo vehicle for industrial environments. He also serves on the board of a Bangalore-based think tank, The Takshashila Institution.

He is an advisor to multiple startups in Bangalore. Before this, in 2005, he co-founded Neev Technologies, an outsourced product development company. It was acquired by the media giant Publicis in 2013, post which he served as the CEO for the same as an independent unit in the group for three years. Earlier, he started his career in various product startups in Bangalore. He graduated as a Mechanical engineer from IIT(BHU), Varanasi, in 2001.

Brought to you by  
**ISA-Bangalore PROGRAM TEAM**



Scan the QR code to Register

**16 JULY 2022**  
**4 PM - 5.30 PM IST**

NOTE: MICROSOFT TEAMS LINK SHALL BE SENT TO THE REGISTERED EMAIL IDS




# ISAB Tech Talk

## ISA-B Tech-Talk 2


### Introduction to OT Cyber Security

<b>Topic</b>	<b><u>"Introduction to OT Cyber Security"</u></b>
<b>Speaker</b>	Mr. TR Ravishankar
<b>Date</b>	10/09/2022
<b>Time</b>	10:00 AM(IST)
<b>Platform</b>	Microsoft Teams



**International Society of Automation**  
Bangalore Section

**CYBERSECURITY COMMITTEE**  
**PRESENTS**



**Trainer**  
**TR RAVISHANKAR**  
**Total Exp : 42 Years**

**Saturday, 10<sup>TH</sup> September**  
**10am to 11.30am**

**ONLINE ON MS Teams**

### Introduction to OT Cyber Security

**Overview**

- Introduction
- Industrial Control Systems applications that are prone to Threat
- How Cyber Attack Happens
- Defining OT Cybersecurity
- Critical Infrastructure from OT Cyber Threats Point of view
- Some Notable Cyber Attacks
- What is Purdue Model for ICS?
- Reasons for Security Threats
- Difference in approach to Security between IT AND OT
- Organization Security Functions
- How to address OT Cyber Security
- ISA Standards and Practice, Certification

**Pre-requisite**


Basic Understanding of Control Systems such as DCS ,PLC ,Building Automation, Scada.etc

# ISAB Tech Talk

## ISA-B Tech-Talk 3


### Getting your ISA / IEC 62443 Certification

Topic	<u>“Getting your ISA / IEC 62443 Certification”</u>
Speaker	Mr. Manjunath Hiregange
Date	17/09/2022
Time	04:30 PM(IST)

  
 International Society of Automation  
 Bangalore Section

### TECH TALK - GETTING YOUR ISA / IEC 62443 CERTIFICATION

on 17th september 2022 4:30 PM IST



**MANJUNATH HIREGANGE**  
Staff Product Security Analyst, GE  
Power Conversion

In this Tech Talk, attendees will understand how to achieve the ISA/IEC62443 certification. A detailed step-by-step flowchart will be explained to get insight into the certification process. We will briefly cover the overview of ISA/IEC 62443 standards and the topic of why to do this certification.

Mr. Manjunath Hiregange is a certified ISA/IEC 62443 Cybersecurity Expert, a senior member of ISA, and a recognized leader of the ISA SMIIOT committee. He is also a member of OMAC Data Security Group (The organization for Machine Automation and Control). He has 14 Years of experience in designing & delivering Secure Industrial Control Systems. Expertise in Risk assessment, vulnerability assessment, Product/Service Certification process as per IEC62443, and upgrading existing plants to security-enhanced systems.

# ISAB Tech Talk

## ISA-B Tech-Talk 4

### Ignite the Leader Within You

Topic	<u>"Ignite the Leader Within You"</u>
Speaker	Mr. Ramesh Dewangan
Date	24/09/2022
Time	06:00 PM(IST)

ISA Bangalore Leadership Talk Series


  
International Society of Automation
   
Bangalore Section

## Topic: Ignite the Leader Within You!

on 24th September 2022, 6:00 PM IST



**Mr. Ramesh Dewangan**  
Founder and CEO - Quantum  
Vision Consulting



Do you want to advance your leadership journey with more confidence and influence?

Do you want to make a greater impact as a leader?

Do you want a better work-life balance?

Welcome to the talk on "Ignite the Leader Within You," where Ramesh will share a process with specific tips to advance your leadership level based on real-life experiences.

Ramesh Dewangan is the Founder and CEO of Quantum Vision Consulting, which focuses on the career and leadership coaching of experienced professionals. He is a best-selling author, certified coach, speaker, and trainer with the John Maxwell Team. He has spent over three decades in the high-tech industry, leading global teams in software development, product management, and marketing. He has launched several new high-tech products in his career. He is an MBA from Haas School of Business, University of California, Berkeley, a Computer Science Master from IIT Madras, and an Electrical Engineer from NITK Surathkal. He is a Distinguished Toastmaster from Toastmasters International.

## Tech-Talk Report:

### *Leadership Talk*

**Career Challenges** - Ramesh Dewangan a seasoned industry professional took the attendees through his life challenges and the lessons learnt.

Bear Bryant says, “It’s not the will to win that’s important. Everyone has that. It’s the will to prepare to win. That’s what really counts.”

### Lessons Learned

The core lessons learned that make life better with higher income and influence:

- No one is born with connecting, influencing, or leadership skills.
- The growth mindset is the key.
- One needs to Impact the team and the organization with integrity and efficiency

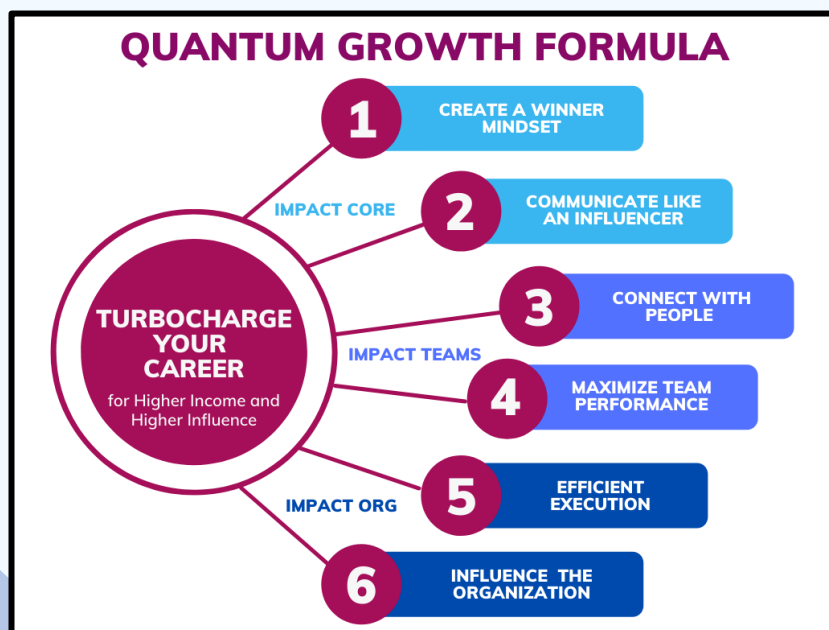
### 6-Step Growth Formula

Based on the lessons I learned, a 6-step process has been developed that consistently helps oneself to become an impactful leader, increasing your influence and income.

It begins with Impacting Yourself. Only when you are ready internally and externally can you step up to become a leader.

First, you need to develop a leadership mindset. You need to work on self-awareness, self-image, learning from experience, Consistency, risk-taking, getting out of the comfort zone, and continual learning. Without the right mindset your leadership success won’t be consistent.

Then, you need to Communicate like a leader. Communication drives how people see you as an influencer or leader. You need to focus on verbal impact, assertive communication, concise communication, and presentation skills.





Once you have taken care of Impacting Core or Yourself, you can step into Impacting Teams, getting a group to meet assigned organizational goals. First, the teams involve building the team. It needs you to be good at connecting with people, building a Thriving Team, and ensuring a good job fit.

Then, you need to manage teams for high performance using empowerment, effective feedback and evaluation, and handling criticism.

Once you have mastered impacting yourself and your teams, you can step to impact the Organization. First, you need to efficiently execute the organizational goals. It needs you to be highly well-organized, manage priorities, set the right organizational goals, and track progress.

Then you need to manage the higher management, impact decision making and grow new leaders.

Some extracts from the talk –

PowerPoint Slide Show - [ISA\_Ignite\_The\_Leader\_Sep22]

## Create A Leader's Mindset

1. Self-awareness
2. Self-image / Confidence
3. Reflecting / Learning from Experience
4. Accountability / Self-discipline
5. Consistency
6. Environment
7. Risk taking / Getting out of comfort zone
8. Proactive / Can-do / Positive Attitude
9. Curious-minded
10. Continual Learning / Growth mindset

### Build a Thriving Team

### Maximize Team Performance

Empower	Empower and Delegate, Trust people
Handle	Give & receive criticism constructively
Resolve	Resolve conflicts constructively



## Summary

If you follow the six-step Quantum Growth Formula including the mindset, communication, connecting, managing team, efficient execution, and managing the organization, you can consistently advance as a leader, with higher influence, lead people who trust and like you, look up to you. You will also have a better work-life balance, where you can take care of family better, have more time to pursue your passions and avoid being on overdrive mode.

You may have to invest in some skills development and coaching. As Abraham Lincoln said, “Give me six hours to chop down a tree and I will spend the first four sharpening the axe.”

You can ignite the leader with you!

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Contact information:

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- Website: <https://quantumvisionconsulting.com>
- LinkedIn: <https://www.linkedin.com/in/rdewangan>



# ISAB Students' Section Activities

## 1. ISA MIT Manipal Student Section

### IAG-22 EVENT REPORT

**Name of the event:** INDIA AUTOMATION GAMES 2022

**Team members:** GEDA SIVA RAM CHOWDARY (200907034), AMEYA VAIDYA (200909156), SHIVAM GOYAL (200908044)

**Date of the event:** 17th and 18th August 2022

**Venue:** Mukesh Patel school of technology management and engineering, Mumbai Hosted by: ISA MPSTME

**Supported by:** ISA Maharashtra section and ISA Asia Pacific District

### SCHEDULE OF THE EVENT

#### DAY1 (AUGUST 17<sup>th</sup> 2022)

12:00 - 2:00 PM: Inauguration

3:00 - 4:30 PM: 1<sup>st</sup> challenge

6:00 - 7:30 PM: 2<sup>nd</sup> challenge

#### DAY2 (AUGUST 18<sup>th</sup> 2022)

8:30 - 10:30 AM: 3<sup>rd</sup> challenge

10:30 AM - 12:30 PM: 4<sup>th</sup> challenge

1:00 - 3:00 PM: 5<sup>th</sup> challenge

3:00 PM onwards: Closing ceremony

### CHALLENGES

#### 1. Name of the challenge: PLC & Sensorics Challenge

**Lab name:** BOSCH PLC & SENSORICS LAB

**Description:**

In this challenge, in the first 30 minutes, the candidate should understand the software in which the candidate should perform the given challenges; the challenge questions were related to the PLC (PROGRAMMABLE LOGIC CONTROLLER), where a set of students allotted one question, the scores were allotted based on the efficiency of the system made by the candidate

#### 2. Name of the challenge: Pneumatics Challenge

**Lab name:** BOSCH PNEUMATICS LAB

**Description:**

In this challenge, in the first 30 minutes, the candidate should understand the whole hardware set-up in the lab, in which the candidate should perform the given challenges. The problem statement for this round is to control the 4/2 DCV using an electrical pulse or the relays.

**3. Name of the challenge:** Hydraulics Challenge

**Lab name:** BOSCH HYDRAULICS LAB

**Description:**

In this challenge, in the first 30 minutes, the candidate should understand the concept of Hydraulics and the working principle of various hydraulic components like DCV, check valve etc.; after understanding the elements, the candidate should be able to design multiple gates such as XOR, NAND etc.

**4. Name of the challenge:** Embedded and Robotics Challenge

**Lab name:** MECHATRONICS & ROBOTICS LAB

**Description:**

In this challenge, in the first 60 minutes, the candidate should understand the working of robotic arm functions and train the robotic arm; in the challenge, the candidate will be assigned one shape, and the candidate should be able to draw that shape by using the robotic arm in the given time in an efficient way.

**5. Name of the challenge:** Instrumentation & Control Challenge

**Lab name:** INSTRUMENTATION & CONTROL LAB

**Description:**

In this challenge, the candidate will get a series of questions ranging from easy to advance level questions; the challenge is to analyse the questions and plot them using MATLAB in the given time.

## PRIZES



# ISAB Students' Section Activities

## 2. *ISA NITT Student Section*

**Event held on July 28, 2022**

**Speaker** - Dr. Ravindra Thamma

**Time** - 5:30 PM (IST)

**Venue** – Seminar Hall of the Department of Instrumentation and Control Engineering, NIT Tiruchirappalli.

The International society of automation Bangalore (ISAB) NIT Trichy student section organized an event at the seminar hall of the department of Instrumentation and Control Engineering NIT Trichy.

Dr. N. Sivakumaran, Professor of ICE dept and Faculty advisor of ISAB-NITT student section welcomed the speakers, faculties and all the students. Sir gave the importance of ISAB to all the students and asked them to become the members of ISAB. In the current fast-growing technology world, it is very important to be part of such professional bodies where student community can be upgraded with latest technology and become tomorrow's professionals in various Automation, instrumentation and allied areas.

Dr. Ravindra Thamma, Associate Dean in the School of Engineering Science and Technology (SEST) at Central Connecticut State University, USA was the chief guest for this session. A memento was presented to the chief guest by Dr. K. DhanaLakshmi, Head of the Department of Instrumentation and Control Engineering. Ravindra Thamma sir has completed his Ph.D. in Mechatronics, Robotics, and Automation Engineering from Low State University. Ravindra sir addressed the participants and delivered the session with the central team on automation.

The title for the session was "Concept to FAT of Machine Vision-Based Medical Implant Polishing System with Online feedback using Machine Learning". The session started by discussing various trends in automation such as industry 4.0, industry 5.0, industry 6.0, etc. The challenges faced in buffing the medical implants and its importance was discussed. Manually done buffing resulted with imperfections on the surface, irregular grain size, manual errors, etc. In the medical implants surface needs to be smoothened with higher degree of perfection, hence it was a great challenge to automate the entire process of machine buffing.

A very well-trained Machine learning algorithm was used to run the process, which is fed with various types of inputs like image of the surface as feedback from profilometer attached with camera, mathematical modelling outputs, position sensors data, PLC data, etc., Hence the entire process was automated and buffing was completed successfully with smoother surface.

The session was concluded at 6:30 PM. Participants including the faculty members, non - teaching staff, results scholars and students attended this event and made it successful; the participants were made aware of the recent trends in the industry and the role of automation in the near future and urged the students and scholars to venture further into the domain. The session was very interactive and finally concluded with vote of thanks.



### Event held on September 9, 2022

**Speaker** - R. Mohamed Ghouse, Co-promoter of Kalchi Controls

**Time** - 5:15 PM (IST)

**Venue** - Seminar Hall of the department of Instrumentation and Control Engineering, NIT Tiruchirappalli.

The International society of automation NIT Trichy student section organized an event at the department of Instrumentation and Control Engineering NIT Trichy seminar hall.

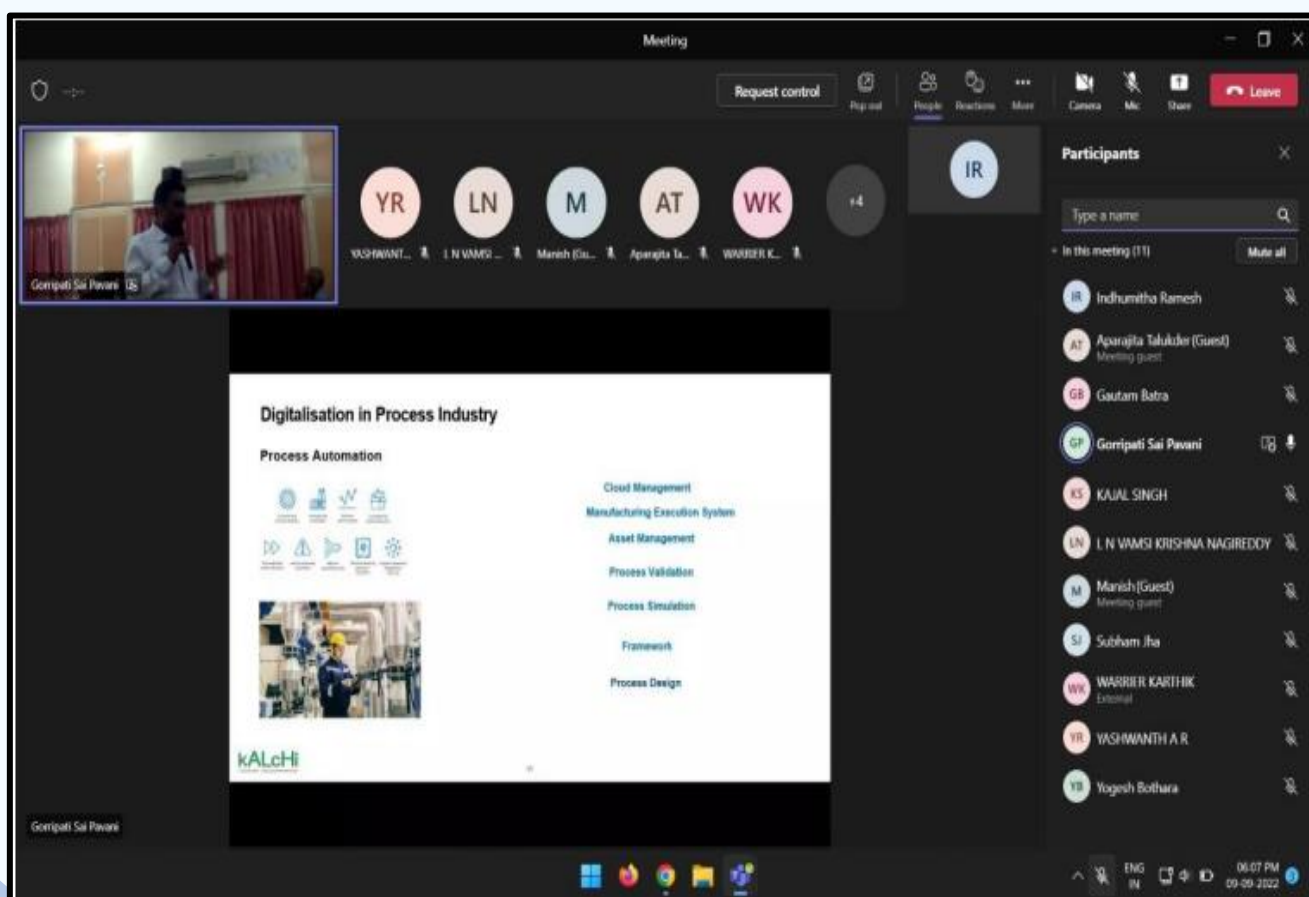


R. Mohamed Ghouse, Co-promoter, Kalchi Controls was the chief guest for this session. A memento was presented to the chief guest by Dr.V.Sridevi, Assistant Professor of the Department of Instrumentation and Control Engineering. Ghouse sir has 26 years of experience which includes him serving as General Manager – Operations and General Manager in Micromax Systems Private Ltd. He did his Master's in Business Administration from Anna University and secured his Engineer's degree in Electronics and Communication Engineering from Mookambigai College of Engineering. Sir addressed the participants and delivered the session with the central team on automation.

The title for the session is "Recent Trends in Automation". Sir started the session with the necessity of Automation in the current Industry. He has spoken about Digitalisation, Optimisation, and the market size for digitalization. Types of Industrial Automation such as Factory and Process Automation and a brief discussion on software used in those Industries have been covered. Sir has given great Insights on the topics of IT and OT Convergence, Cloud management, Data Analytics, Robotic process automation, and Edge devices. Sir has spoken about how new training techniques like Digital Twin and Augmented Reality are used for training much faster and more intuitive than ever. Automation techniques used in Paper plant, Foundry, Sugar Mill, Pulp Mill, Automobile, and various other industries has been briefly discussed in the session.

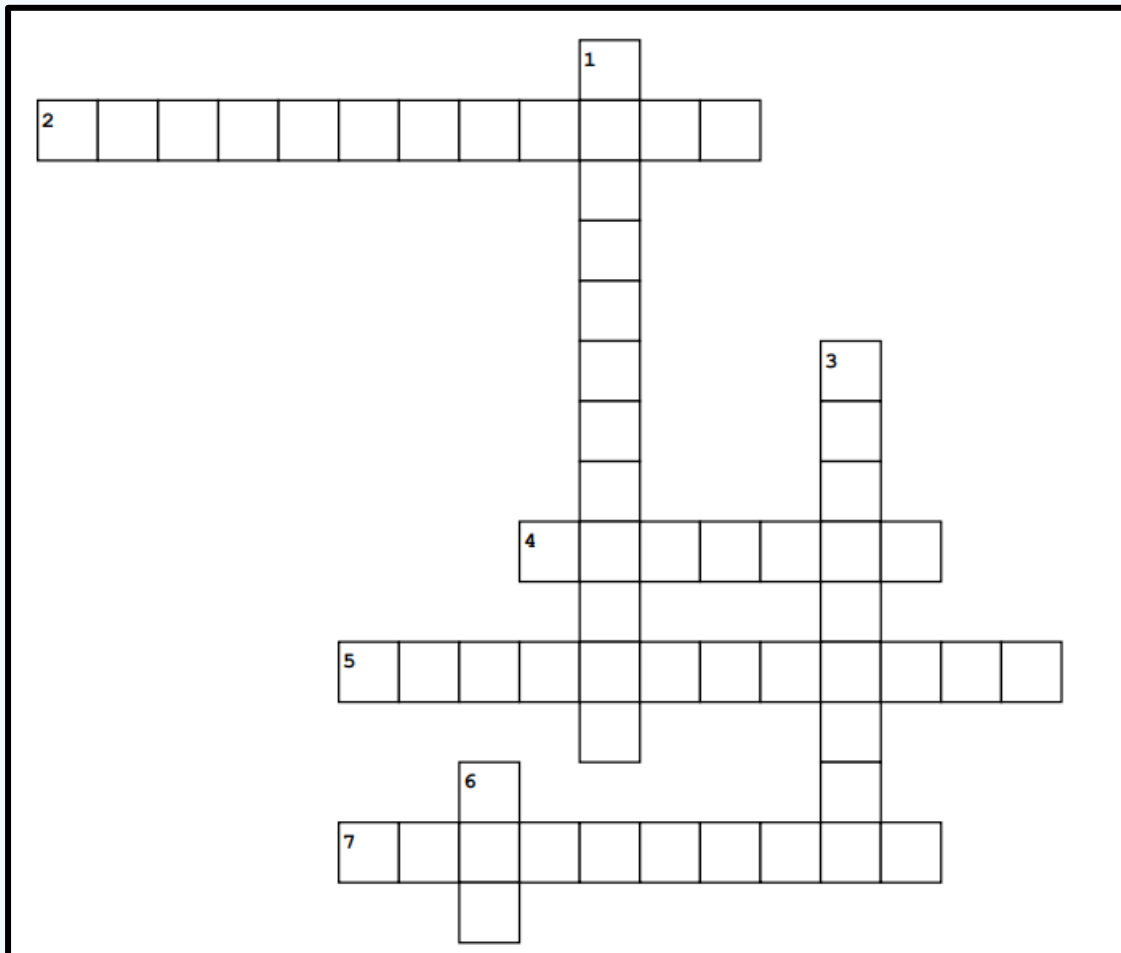
The session was concluded at 7 PM. participants including the faculty members nonteaching staff results scholars and students attended this event and made it successful, the participants were made aware of the recent trends in the industry and the role of automation shortly and urged the students and scholars to venture further into the domain.







# Crossword



## Across

2. Determines the rate of measurement cycles
4. Reference electrode for recording EEG is placed on
5. Who discovered current
7. To increase the current sensitivity below 10 mV, electronic instrument uses

## Down

1. Oscilloscope is used in a digital storage oscilloscope
3. MOSFET switch in its on-state may be considered equivalent to
6. Best example of a single-channel data acquisition system

# ISAB

## New Membership List

SL no	Name	Date of Joining	Company Name
<b>JUNE</b>			
1.	Abilash Narayan Kannakumar Latha	30-06-2022	
2.	Ankit Singh	26-06-2022	
3.	Niju George	27-06-2022	Emerson Export Engineering Center
4.	Shree Janani Sundararajan	30-06-2022	Schneider Electric
5.	Vishnu Soman	30-06-2022	Yokogawa India Limited
<b>JULY</b>			
6.	Anil M P	26-07-2022	ABB Global Industries & Services Private Limited
7.	Ashish Garg	02-07-2022	Jindal Saw Limited
8.	Divaharan Murugesan	25-07-2022	ABB
9.	Divya Visalakshi Suresh Kumar	26-07-2022	ABB Global Industries & Services Private Limited
10.	K Sivakumar	26-07-2022	ABB Global Industries & Services Private Limited
11.	Karthik Warriar	05-07-2022	National Institute of Technology Tiruchirappalli
12.	Manjunath Denkanikota	24-07-2022	
13.	Palaniyappan Kailasam	15-07-2022	
14.	V Hanumantha Rao Namuduri	25-07-2022	
15.	Vasudev Akkala	14-07-2022	Multivista
16.	Vishal Mahajan	21-07-2022	Yokogawa India Limited

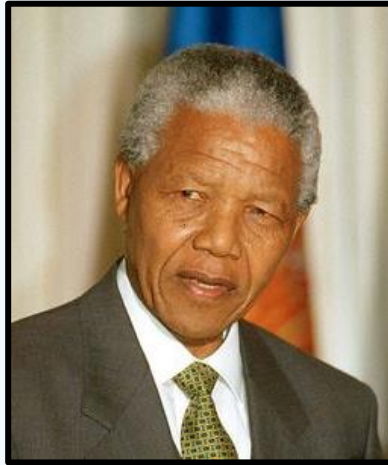
August			
17.	Ganga Angappan	11-08-2022	Schneider Electric Systems India Pvt Ltd
18.	Kapil Pandey	06-08-2022	Dover India Pvt Ltd
19.	Suryaraj C. S,	02-08-2022	Adi Shankara Institute of Engineering and Technology
20.	Viwin Jayaprakasan	28-08-2022	FLSmidth India Private Limited
September			
21.	Abdul Khadir	07-09-2022	Schneider Electric India Pvt Ltd-Electrical & Automation
22.	Anand Iyer	14-09-2022	
23.	Anup Patle	18-09-2022	
24.	Arun Murugesan	07-09-2022	Yokogawa India Limited
25.	Arunakumar Basarakod	07-09-2022	Schneider Electric India Pvt Ltd-Electrical & Automation
26.	Dhinakaran Hariharan	18-09-2022	
27.	Dilip Kumar V	07-09-2022	Schneider Electric India Pvt Ltd-Electrical & Automation
28.	Goudappa G	07-09-2022	Schneider Electric India Pvt Ltd-Electrical & Automation
29.	Puneeth Kannaraya	13-09-2022	Indian Institute of Science
30.	Rahul Sinha	08-09-2022	Tata Consultancy Services
31.	Roy Abhinav	07-09-2022	Schneider Electric India Pvt Ltd-Electrical & Automation
32.	Sai Charran Mangala	07-09-2022	Schneider Electric India Pvt Ltd-Electrical & Automation
33.	Sai Roopak Voleti	07-09-2022	Schneider Electric India Pvt Ltd-Electrical & Automation
34.	Sanju Sadanandan	15-09-2022	SHELL India Markets Pvt Ltd
35.	Shravan M N	09-09-2022	
36.	Watson Arun Singh	19-09-2022	

*Report by -*



**Ms. Missy Dash**  
**ISA-B Membership Chair**

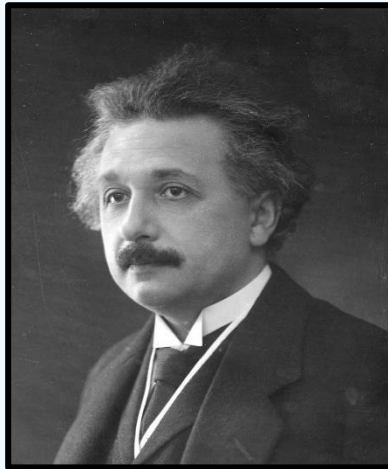
## Quotes of the Quarter



**“It always seems impossible until it’s done.”**

**- Nelson Mandela**

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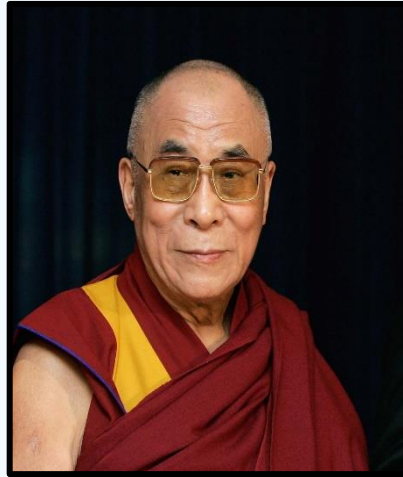


**“Strive not to be a success, but rather of value.”**

**- Albert Einstein**

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Image Courtesy: <http://surl.li/dhdhx>

## Quotes of the Quarter



**“Happiness is not something readymade, it comes from your own actions”**

- Dalai Lama

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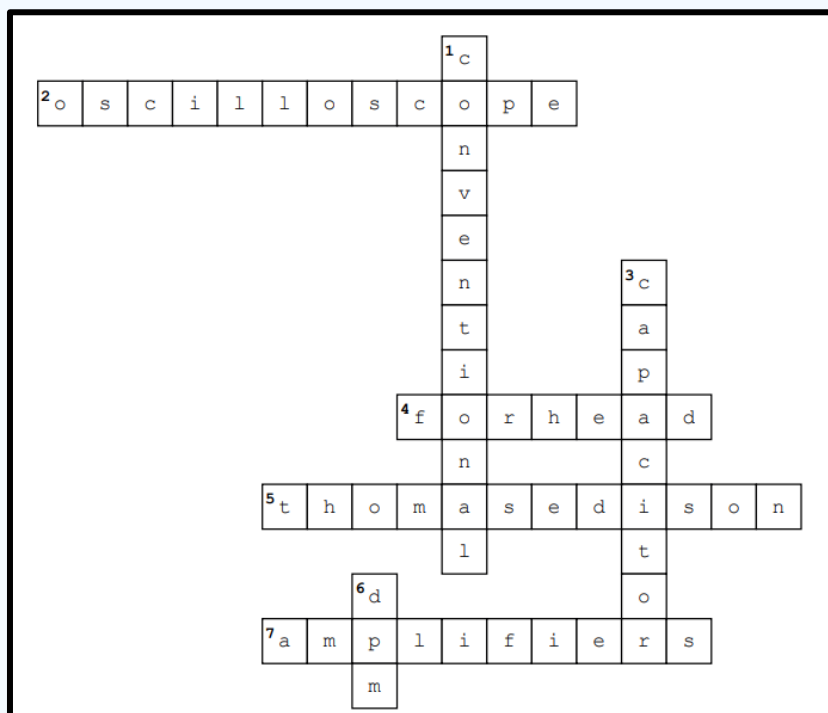


**“Innovation distinguishes between a leader and a follower.”**

- Steve Jobs

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Image Courtesy: <http://surl.li/dhdhu>

## Answers for the crossword



### Across

- 2. Oscilloscope
- 4. Forehead
- 5. Thomas Edison
- 7. Amplifiers

### Down

- 1. Conventional
- 3. Capacitor
- 6. DPM

## ISAB Contact

### CONTACT US

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