# ISA Pune India Section

*Setting the Standard for Automation*

**President: Ms. Sujata Tilak**

**Secretary: Mr Vikas Anwekar**

**Treasurer: Mr. Rahul Karale**

# ISA Pune Section
# News Letter Jan, 2018

http://www.isa-pune.org/

*Dear Members*

*Year 2018 started with the Students conference on IIoT at VIT, Pune on 13th Jan 2018, which was a huge success. Thanks to the Volunteers (students), who played a big role in making it a grand success.*

*And early February we have the Tech Talk on Functional Safety and SIL certification, being delivered by Mandar Phadke, Risknowlogy India Pvt. Ltd. Functional safety is of course the next big thing (or continuing big thing) in Automation. Don't miss this event, as it will be an eyeopener.*

*As we start incorporating more pictures, the newsletter is becoming bulky and getting rejected by many mail servers. So, we are giving links for pictures of event's on our website. We however, do keep a few in the magazine.*

*Please forward your article, event, success stories and other contributions to this newsletter by writing to us at isa.punesection@gmail.com with the subject line "Newsletter Contribution:" followed by the title.*
*Kindly note that your contribution may be edited to suit the tastes and needs of the newsletters audience.*

*Happy reading From*

*ISA Pune section –Newsletter Editor*

*Anand Iyer*

# From the President's Desk

Welcome to the first newsletter of 2018! The New Year comes with lot of hope, new beginnings and resolutions. My New Year resolution for ISA is to reach more and more end users of automation. Percentage of end users in Pune Section membership is miniscule. So there is lot of scope for improvement. This will happen only if ISA becomes a 'Go To' organization for all subjects related to Automation. And this is exactly the vision of our newly elected District Vice President, Mr Ramani Iyer. Together we will make it happen!

The IIoT conference for students was successful, thanks to efforts of the student volunteers and VIT, the host college. This conference provided an opportunity for students from different colleges to come together and collaborate. I am sure this spirit will continue and we will see more and more collaboration and exchange of ideas amongst ISA student members.

Sujata Tilak
ISA Pune Section President
Sujata.tilak@aiplindia.com

## Thank You

*The one day students' conference on 'Industrial IoT' was a big success. Many thanks to the students who took the challenge on their shoulders and managed the whole event.*

*Students from all the colleges participated with equal vigor. We hope to carry on the momentum to the next year.*

*Students sections memberships provide a lot of educational and people skill development opportunities as also an opportunity to liaise with Industry leaders and experts to grow in their automation careers.*

*Thank you once again for your support.*



*Mrs. Sujata Tilak*

*ISA Pune section President*



*For ISA Pune Section,*


*Sujata Tilak,*

*President, ISA Pune Section*

http://www.isa-pune.org/

# One day conference for students on Industrial Internet of Things, VIT, Pune, January 13th, 2018

*Prasenjeet Gadhe,*

*President Elect*

*ISA VIT Pune*

*ISA Pune Section, held a one day conference on 'Industrial IoT- The Automation Perspective' at 'VIT Campus' on 13-Jan-2018.*

*The event was attended by students from VIT, AISSMS, IOIT, D.Y.Patil, MIT colleges.*

*The conference showcased how collaboration between IT, OT and IACS creates huge value for the users.*

*The Students conference on Industrial Internet of Things(IIoT) was organized by International Society of Automation(ISA), and hosted by Instrumentation Engineering Department in Sharad Arena, Vishwakarma Institue of Technology, Pune. This conference provided a huge opportunity to students to understand IIoT and its applications. The conference received an active participation from the students with more than 240 registrations from 6 colleges in Pune.The conference began with a heart-warming welcome speech by Dr. Shilpa Sondkar, Head of the Department, Instrumentation Engineering, VIT, Pune, thanking ISA for organizing the conference and providing such great opportunity to the students to learn and explore more about the subject.*



*Mr. J.G. Bapat, VP, ISA Pune section, gave a brief introduction of ISA, which began as Instrumentation Society of America in 1945. He also proudly mentioned that ISA has taken a leap since and spread in US, India, Bangladesh, Japan, and few more eastern counties. Encouraging the students to come up with new ideas for projects, he said, "There is lots and lots to gain but the access is your own".*

http://www.isa-pune.org/

*Mr. Rahul Waikar, Dean of Academics, VIT, Pune, indicated that IIoT is the next industrial revolution and has the potential of affecting day to day life to a great extent.*

*"The next decade will be of Instrumentation engineers because of IoT", said Mr. Ganesh Dongre, Dean of R&D, VIT, Pune, raising the spirits of the students. He also inspired the students to see Iot as a great opportunity for advancement in technology.*

*Dr. Ramani Iyer, DVP, ISA shared his personal experiences and motivated the students to understand the true meaning of Instrumentation and its connection to the society. Inspiring the students to stay determined in life, he also said," Automation is going to touch our lives like never before". He also explained a few existing applications of automation in industries and incentivized the students to consider IoT as a means to serve the society.*

*Mrs. Sujata Tilak, President, ISA-Pune Section; MD Ascent Intellimation started the Session-1 about IIoT Architechture & Applications stating that IoT is possible because of all the Technology coming together.        She also shed light on how the world is changing in ways unthinkable and the ways in which IoT is being implemented across the globe.*

*Session-2 by Mr. Abhijeet Mhetre, VP, Marketing, Altizon, particularly focussed on directing the students for jobs in Industry 4.0 Era. "We live, breathe, walk and talk technology", he said implying that everything is getting digitized forming an IoT ecosystem leading to 'tsunami of data', transforming the industrial world upside down. He also urged the youths to include IIoT in business and work opportunities to innovate at every touchpoint. He also inspirited the students to be apt to solve problems not yet existent and instilled great enthusiasm among the students informing them of the new job opportunities coming up. "Sooner you begin sooner you can acquire the skills", Mr. Mhetre mentioned stirring the students to get into actions and create real assetworthy portfolios.*

*Session-3 embarked on 'Smart Sensors and Assets' signifying that the demand driven manufacturing and the customer centric markets are facilitating the business based on IoT. Mr. KV Rehani, KVR Consulting, concluded asking the students to set high goals and achieve great success in their journeys.*

*The case study  presented by Mr. Vishal Pansare, Business Manager, Logicon Techno solutions, where he shared the challenges faced by him during the journey had a great influence on the students and led them to contemplate on projects for IIoT.*

*Mr. Pavan Pawar, Head- Implementation, Ascent Intellimation, talked about the second case study on Brownfield Installations- an export oriented factory in chakan, where he faced a few problems from the working force, trying to get them to accept the changes. He also enlightened the students about the ZID plant Monitoring System using IIoT in Telangana District as an attempt to make the environment cleaner.*

*The Panel discussion was a very intriguing session making the seminar a promising platform for the students allowing them to easily approach the dignitaries present and satisfy their curiosities.*

*After lunch began the much-awaited IIoT Competition where the students demonstrated project ideas based on IoT covering various sectors. These ideas and presentations inspired the audience to a great extent and also interested the judges greatly. An event is not possible without the efforts of volunteers. Certificates and gifts were distributed among the volunteers. And the results of the competition were announced. Four of the seven participants were rewarded for their exceptional thinking . The Conference was a huge success and served the purpose of enlightening and motivating  the students to understand IIoT better and proved to be a great platform for presenting ideas.*

*At the end Prof. Archana Chaudhari, ISA Coordinator VIT Pune gave the vote of thanks on behalf of VIT, in her speech she mentioned how students from different colleges worked together and how well does ISA Pune section helps as always to college for implementing different initiatives.*

*P.s. Links for pictures for the event will be posted on our website.*

## Tech Talk on Functional Safety And SIL

# International Society of Automation (ISA) Pune Section

Cordially invites you for **Tech Talk** on

**Functional Safety & SIL**

On Saturday, **03rd Feb 2018** at **5:00 pm**

The talk will be delivered by

**Mr. Mandar Phadke, Director, RISKNOWLOGY**

**About Topic:**

*Today most Safety Systems used in industry (Safety Instrumented Systems, Emergency Shutdown Systems) as well as domestic sectors (think elevators, revolving doors, cars) are comprised of Electrical/Electronic/Programmable Electronic systems. The IEC (International Electro technical Commission) refers to these as E/E/PE systems. Safety Functions that are implemented using such systems come in the realm of Functional Safety. SIL (Safety Integrity Level) of a Safety Function is arguably the most famous parameter in the world of Functional Safety. Even engineers and automation professionals may not have heard of Functional Safety, but they have certainly heard about SIL. However, unfortunately there are many misconceptions and myths surrounding SIL and Functional Safety.*

*Functional Safety, SIL and SIL Certification tech talk will enable you to get a basic idea of Functional Safety and SIL including SIL Certification of your devices and systems.*

*About the Speaker:*

*Mandar Phadke B.E. (Instrumentation, University of Bombay & M.B.A., LaTrobe University, Melbourne) has over 27 years' experience in the field of Automation & Electrical Systems, Project Engineering, Software, Functional Safety and General Management in India & China. He heads Risknowlgy's Indian operations. He also heads Abhisam Software Pvt Ltd, a company engaged in e-learning and training. He has participated in various national and international*

Mandar Phadke,

Director,

Risknowlogy India Pvt. Ltd.

http://www.isa-pune.org/

*symposiums and in the past has also served as a Voting Member on ISA 12.13 committee.*

*Venue location link as below:*

*https://www.google.co.in/maps/place/Mahratta+Chamber+Of+Commerce+Industries+%26+Agriculture /@18.5356934,73.8276793,17z/data=!3m1!4b1!4m5!3m4!1s0x3bc2c06ce5555555:0xd8f30539fc95f1b 4!8m2!3d18.5356883!4d73.829868*

| Program details: | Agenda: |
|---|---|
| Saturday, **03rd Feb 2018** | 5:00 to 5:30 – Registration |
| 5:00 pm to 7:00 pm | 5:30 to 6:45 – Tech talk |
| **Venue:** | 6:45 to 7:00 – Tea and Networking |
| | **RSVP:** |
| Navalmal Firodia Seminar Hall No. 4 – West, MCCIA Trade Tower (5th Floor) | **No fees, but prior registration is necessary,** |
| Senapati Bapat Marg, Pune | https://in.explara.com/e/tech-talk |

**Ms. Sujata Tilak**                          **Mr. Vikas Anwekar**

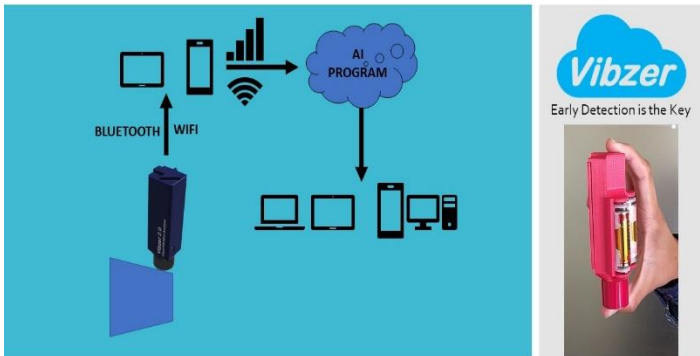President, ISA Pune Section                 Secretary, ISA, Pune Section

# A 'Machine Doctor' in your pocket!

"Industrie-4.0 demands a radical reimagining of manufacturing and production and "smart services" represents a disruptive technological eventuality.  Even as we start our journey towards Industrie-4.0 readiness, Machine health monitoring becomes a prime focus area. Without Machine health monitoring, the Cyber-Physical world imagined would face a big roadblock.

The sad fact is that 99% of rotating equipment do not have a machine health monitoring system. As a result professionals in Industries are not aware of the state of their equipment! This results in unscheduled shutdowns resulting in losses in the millions of dollars.  Yes! Millions!!
Some 'lucky machines' do have an online probe for measuring the vibration and that could trip or raise an alarm when vibrations are high. But there is no predictive maintenance effort. This is generally done by expensive portable meters.

The key hurdles to the prolific usage of Machine Health Monitoring have remained the high cost of such systems. Vibzer is about to change all that! With

*We present a IIoT based Machine Health Monitoring solution from a Pune based startup!.*

*This device+solution showcases, what is coming with IIoT to Automation.*

*Life is going to be simpler, more measurements are possible than ever before! Total Cost of Ownership and INITIAL COST of OWNERSHIP (TCO+ICO) is going down like never before!*

their pocket sized portable measurement system, users can now take readings at a very affordable price. "We Intend to make our device available in every maintenance engineer/technicians pocket. Just as we have multimeters in every pocket today, the Vibzer device, our Machine Health Doctor should be in each pocket. Maintenance has to go from reactive to predictive!" Satish Patil, MD & CEO, Vibzer.

*Products can be customized! The Vibzer could be available in your choice color, though interactive color design is not yet done online and is currently on a on-demand basis.*

*We wish all the best to this device and hope to feature more IIoT success stories in the future.*

Vibzer's intentions have been very clear! Machine health monitoring should reach the last rotating equipment. With a simple to use Mobile App and a detailed webpage, users can see the issues with their machines and the actionable items in easy layman language! Higher end users can see vibration trends, FFT analysis, and various performance trends for further insight.  The App is very intuitive and user friendly. Taking a reading is as easy as keeping the device on the machine, clikclng analyze button on the app and the daata is captured and sent to the cloud, where an AI program analyzes the vibration and provides almost instantaneous report to the user.

http://www.isa-pune.org/

The device will also be available on their webstore (and maybe we will see it in Amazon, ebay and others 😊) and you can buy it using various payment options immediately! (Note, website and store is under revamp and will be on within a short span of time).

This fits into the first phase of industrie-4.0 for all industries (all, even those who claim to be in Industrie-4.0 already, because machine condition monitoring is still mostly absent) where manual measurements make machinery health being read by people a reality. It is also going to enable normal operations staff (without much machine condition monitoring experience) take redings and call in experts only when needed, saving experts time and efforts from trivial issues.

Vibzer is also proposing to provide continuous measurement solutions to customers intending to enter the Industrie-4.0 era. Soon every machine will inform when it is going to have a problem and take you to the real CyberPhysical era of industrie-4.0.

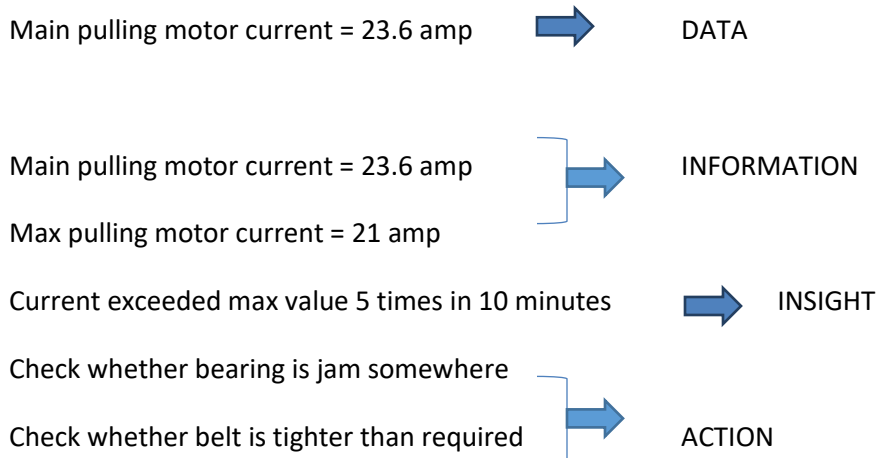Contacts: 3rd Floor, Adams Court, Baner Road, Pune 411045, sales@vibzer.com , www.vibzer.com

Tel: +91 9823013606

# Bridging the gap between connected and smart

Someone asked me this question at one of the conferences. This is a good question and it's very important first to understand the difference between connected and smart.

When any assets are connected to an IoT system we start getting the '**data**'. It may include process parameters, status, events, messages and many other types. A system might have hundreds or thousands of connected assets which are generating huge amount of data. Just to put things in perspective, a single machine with 50 numeric parameters polled at 1 sec frequency for 24 hours will generate 34,560,000 bytes of data. So approximately 32 MB of data just from a single asset in 1 day!

So any asset from which real time data is acquired is '**Connected Asset**'. But in order to become a '**Smart Asset**', only data is not sufficient. The data has to be contextualized and thus converted to '**Information**'. Further the information has to be used to extract '**Insights**' using which a required decision or action can be taken. Let us take an example –

*Sujata explains the fine differences in some key terminologies used in IoT/IIoT*



*Sujata Tilak, M.D.,*

*Ascent Intellimation Pvt. Ltd.*

*Sujata.tilak@aiplindia.com*

.

Main pulling motor current = 23.6 amp  ➡  DATA

Main pulling motor current = 23.6 amp
Max pulling motor current = 21 amp  ➡  INFORMATION

Current exceeded max value 5 times in 10 minutes  ➡  INSIGHT

Check whether bearing is jam somewhere
Check whether belt is tighter than required  ➡  ACTION

So to bridge the gap between connected and smart, one has to ensure that relevant Data elements in any system are converted to or contribute to Information elements. Further the information is used to extract Insights which lead to Actions and/or Decisions.

A&D carried out a report of the ISA IIoT – The Automation Perspective conference held on 11th Nov 2018 in its Dec issue.



IED Communications, Industrial Automation magazine carried out coverage of our event in Jan 2018 issue.

# Industrial IoT – The Automation Perspective

ISA Pune Section, held a one day conference on 'Industrial IoT – The Automation Perspective' recently.



*Somnath Chakraborty, Ramani Iyer, Rajeev Jorapur, Sujata Tilak and Markus Bochynek during the lighting of the lamp.*



*Markus Bochynek, VP, Aucotec AG, Germany, in the foreground as the audience listens with rapt attention.*



*Ramani Iyer, DVP of ISA District 14, felicitating Neeraj Agrawal – Associate Director, Process Control, NPCIL*

A one-day Conference on Industrial IoT was held by ISA Pune Section in November 2017. The event was attended by members of the Automation community from all over the Pune district and some even from Mumbai. Over 150 participants benefitted from the information shared by industry leaders, users, solution providers, product manufacturers.

The conference showcased how collaboration between IT, OT and IACS creates huge value for the users.

The event was started by the traditional lighting of the lamp. Markus Bochynek, VP, Aucotec AG, Germany, spoke on the global perspective of Industry 4.0, of which IIoT forms a big part.

In the keynote address Rajeev Jorapur, VP at Bajaj Auto, highlighted the digital transformation in Indian manufacturing, followed by Mr Nikhil Kelkar, VP, Siemens Industry Systems, providing a solution providers perspective on this digital transformation.

Amol Mate, VP Altizon Systems, provided insights on doing IIoT the right way.

The Panel Discussion, 'The Great Expectations', summed up the great expectations the industry has around IIoT and Industry 4.0 in general.

Further some sessions on Case Studies by users and solution providers, followed by 'Smart Sensors and PLCs: Foundations of IIoT' by Virendra Deshpande, BM, Omron Automation.

> **The Panel Discussion, 'The Great Expectations', summed up the great expectations the industry has around IIoT and Industry 4.0 in general.**

Stalls by leading manufacturers and solution providers kept the audience enthralled during breaks. The session on IIoT platforms by Somnath Chakraborty, Director at Siemens Industry Systems and Monetising IIoT by Ajay Bhagwat, MD, Renu Electronics, summed up the session. The audience was interested in the topics til the end of the sessions, which were well delivered.

Mr Ramani Iyer, DVP of ISA District-14 (all India), highlighted that the conference scored high on content and delivery.

ISA Pune Section is one of the 9 active sections under the District-14 of ISA. It has more than 60 active members from various segments of the Automation and Instrumentation Industry and the Academia. It undertakes several initiatives for the Process and the Manufacturing Industries to keep them abreast of latest trends in Automation Technologies.

The International Society of Automation is a non-profit professional association that sets the standard for those who apply engineering and technology to improve the management, safety, and cybersecurity of modern automation and control systems used across industry and critical infrastructure. Founded in 1945, ISA 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 40,000 members and 400,000 customers around the world.

Students Conference ends in a grand Success!

Nomination for Isa leaders is on!

https://www.isa.org/members-corner/leader-resources/leadership-structure/society-officer-executive-board-c-vice-president-nominations/

ISA focusing on growth in the new year!

https://www.isa.org/insights/2017/12/presidents-column-isa-focusing-on-growth-and-opportunity-as-it-approaches-the-new-year/

3rd Feb 2018, we have the Tech Talk on Functional Safety and Sil Certification.

24th Feb 2018, we have the annual ISA members get together and this time, it is a full day event.

**Please send your news information to** *isa.punesection@gmail.com*

**Please note that your submission will be edited and presented in a way our readers prefer.**