

ISA Delhi Section

Announces

Petroleum and Power Automation Meet 2015









10-11 April 2015

Venue: Eros Hotel, Nehru Place, New Delhi

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एस. सी. पाण्डेय निदेशक (परियोजनाएँ) S.C. PANDEY Director (Projects)



केन्द्रीय कार्यालय/Corporate Centre



I am glad to note that PETROLEUM & POWER AUTOMATION MEET-2015 is being organized by ISA Delhi Section. Continuation of such efforts by ISA Delhi Section, to bring out technical papers for the Power & petroleum industry, is a good initiative as it will help all automation stake- holders in sharing the learning between two important industry segments of India's immensely important infrastructure segments.

In the last few years, there have been many challenges as well as innovations in the field automation systems of Power Generation, with the adoption and commissioning of supercritical power plants across country. Further, with government emphasis on non-conventional or renewable energy, the growth of technology vis-à-vis the demands of automation solutions in the Indian Industry has called for customization needs, suitable to the working conditions in our country. It therefore is important that such technology oriented and focused seminar, as being conducted by ISA Delhi Section, should be able to create significant contributions for the benefit of the automation fraternity.

This two days conference is very appropriately timed by the ISA Delhi Section to begin the next financial year with a note on the evolving technology and business spectrum. I am sure that this platform will be satiating the learning desires of all the participants from the Power and Petroleum Industry.

I wish ISA Delhi Section all the very best for a successful event ahead.

(S.C. PANDEY)

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The efforts being put up by ISA Delhi Section are appreciated in organizing an important automation conference this year. Such a focused dedicated Automation Technology campaign, in the critical sectors of Petroleum and Power, is very much needed to accelerate the transformation of the infrastructure sector in India, as automation is one of the key enabler for efficiency, safety, innovations and above all sustainability of these industry domain.

Indian market, despite its complexity and regulatory challenges, is inviting national and international players who have the expertise to take up the Automation technology to the next level. As the rapidly expanding power and petroleum sector offers abundant opportunities for the qualified, talented, capable engineering professionals, this knowledge sharing event, I am sure, therefore would add a lot of value to all the participants from these sectors.

It is also note-worthy that through such seminars, ISA Delhi Section is striving to facilitate through integrated automation, the realization of world class plants in India with green, clean and lean visualization. We are proud of our established global benchmarks in power and petroleum industries in terms of both reliability and cost competitiveness.

I wish ISA Delhi Section members and all the participants in this event, a very best of time ahead.

-Sd-

Ajit Kumar Director (Commercial and Operations) PTC INDIA LIMITED

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MESSAGE

The Energy resources in the country have been under severe pressure due to the imbalance created in the demand and supply. With majority of raw materials being imported it is an area of concern for the country with regards to sustainability in the future. In such a case it is the automation Technology that may help reducing this gap as well as become a major factor in meeting the sustainability needs of the petroleum and power sector in India.

It gives me immense pleasure to learn that ISA Delhi Section is once again organizing a new Mega Automation Technology Event Petroleum & Power Automation Meet 2015 in Delhi from 10th to 11th April 2013.

The role of Automation Technology, specifically Instrumentation & Control is very crucial in these Industry domains to generate efficiency and sustainability in the power generation as well as oil & gas processes.

The role of Automation quite obviously is not only to produce and transmit more safe and reliable energy but also it is at the same time very noteworthy in terms of providing economic advantages.

This gathering of automation professionals under the umbrella of ISA Delhi Section, I am sure, would provide the ever needed platform of information exchange among the decision makers in the domains of indutrsy.

I wish ISA Delhi Section a very best of the success for this conclave to create dynamic strides in this journey of sharing the experiences in Automation Technology towards the growth of industry in India.

With Regards

Ajay N Deshpande Director (Technical) Engineers India Limited

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I am pleased to see an overwhelming response towards this unique unprecedented platform of Petroleum & Power Automation Meet a Mega attempt on Technology sharing between the Users and the Producers.

Organized by ISA Delhi Section is being held in New Delhi on 10th and 11th April, 2015, the wide spectrum of topics cover Asset Management, Emerging Trends and the Challenges that are common in both these segments related to Energy.

Energy is the most important input for our national growth and development. Meeting the energy challenge is of fundamental importance to our economic growth targets and its efforts to raise its level of human development. The broad vision behind the energy policy is to reliably meet the demand for energy services of all sectors at competitive prices. The demand must be met through safe, clean and convenient forms of energy at the least cost in a technically efficient, economically viable and environmentally sustainable manner.

In order to fulfil our future requirement, we need to go for rapid capacity addition using all the possible energy options including coal, hydro, nuclear, and renewable resources. It is praiseworthy to note that the use of automated system has entered many folds in the energy sector. This ensures reliable and quality power. With increased automation, we have increased availability, reliability, safety, and stability of the assets of the power plants. At the same time, we need to give more emphasis on issues like cyber security.

I am glad to inform that this is being dealt in the conference. It is a good opportunity for the Control and Instrumentation Engineers to attend this conference to enhance the technical expertise as ISA gives a common platform to all the stake holders for sharing the knowledge and expertise.

Also, I sincerely thanks to all sponsors, contributors of the Technical papers and to all members of organizing committee who despite huge workloads at their respective organization have worked very hard to make this event successful.

SK Bardhan

Hon President ISA Delhi Section

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As India embarks into the new era of Manufacturing, the demands of Energy in Process Industry i.e. the Oil &Gas and Power Generation segment have taken a new level. Therefore, the key challenge is balancing the techno-commercial aspects of these Industries in which Automation Technology will play an important role improve productivity, reduce inefficiencies and enhance sustainability as well as life of the plant and equipment in this domain.

It is commendable that ISA Delhi has taken a huge responsibility of bringing together the users and technology vendors of India under one roof to address the challenges of growth of Petroleum & Power sector.

The ISA team has worked hard to get together the Technical heads of various users organizations both Public and private to compile a host of technical papers that will sure transmit the wide variety of experience from across the globe during this two day Petroleum & Power Automation Meet 2015.

In dynamic times of Economy and India, we hope that this symposium will trigger new ideas for all the stake holders to come together and deliberate a successful path forward.

Special thanks to all the people who have worked tirelessly to make this event happen. Also, we appreciate the support of participants and sponsors who have reinforced the commitment to work together for the success of this event.

I wish all the success to all the ISA Delhi Section Members, the Particicpating Delegates as well as the sponsors.

With Best regards

Ashish Manchanda Hon. Secretary ISA-Delhi Section

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It is indeed enormous delight that ISA Delhi section is organizing a unique mega event that brings the best of two domains i.e. the Petroleum and Power to be held on 10th and 11th April 2015 i.e. Petroleum and Power Automation Meet 2015. Role of Automation is increasingly becoming vital role in running the plants in safest mode and at highest efficiency and productivity, starting from Upstream till Downstream as well from material handling till BTG.

Through this event ISA Delhi team has put all out efforts to present the programme that brings the best of both these domains by inviting unique participation from Users & Producers that will cater to the needs of today and the challenges of the future. Our senior and well experienced team members have put extra hours, to meticulously study all the Papers received, and to select the Paper topics. Exhibitors from the Industries have been invited to display their products, so that it benefits the "Users" immensely. Our team members are quite confident that at the end of this mega event, participants will gain immensely in their knowledge and support them in creating a balanced technology platform for their professional quests.

I would like to convey thanks to the Technical team for timely preparing the Souvenir, compiling all the Technical Papers, various manufacturers details received and well designing the contents.

On behalf of the Executive Board of ISA Delhi, I would also like to convey thanks to the HPTC members (High Power Technical Committee), supporters, Sponsors and other dedicated members for making this mega event a grand success.

With the support of Users & Producers and dedicated members of Programme Committee, ISA Delhi wished to a very successful year ahead.

With best wishes

S K Dhawan Chief Convener ISA-Delhi Section

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This first time attempt of ISA Delhi Section to bring the world of Petroleum and Power together is indeed a unique high-level interface among all the decision-makers of Petroleum & Power industry, wherein the concerns and prospects are getting common now a days.

To share the knowledge and learn from the latest experiences of the Oil & Gas Segment, ISA-Delhi has taken steady steps to create a progressive platform in India. The current event which ISA Delhi Section has planned for two days i.e.10th and 11th of April 2015 at Hotel Eros, Nehru Place, New Delhi with topics related to Petroleum & Power sector is indeed a new initiative in the field of Automation related to the enhancing technology and skills in the overall Energy domain.

Along with the conference proceedings, a souvenir has been prepared as a source of reference material on the subject for further reading. All the technical papers shall be present in this booklet and also in the presentations covering various aspects of technology will be further added on the website of ISA Delhi Section.

Automation is a technology that is now of immeasurable importance for process control and asset monitoring in the Petroleum as well a Power Industry. Many newer products are being introduced by manufacturers which needs the attention of the users and at the same time many concerns are of the users who are are still cautious in adopting the dynamic changes in technology.

This event will surely help increasing awareness about latest technology to pave way for its early implementation in the process industry.

With Best Regards

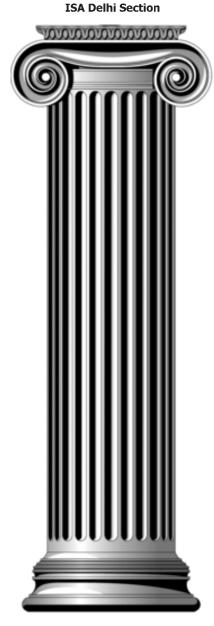
RAJIV GUPTA

CONVENOR Petroleum Domain

Petroleum & Power Automation Meet

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ISA



The International Society of Automation (ISA)

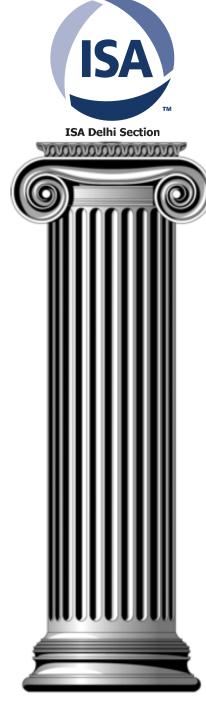
Founded in 1945, the International Society of Automation (ISA) is a leading, global, nonprofit organization that is setting the standard for automation by helping over 30,000 worldwide members and other professionals to meet, interact and share their knowledge. Based in Research Triangle Park, North Carolina, ISA is organised into 14 districts and hundreds of sections across the world. The South East Asia region is designated as District-14 and within this district, the Delhi Section is an active organization drawing members from the entire spectrum of automation industry across Power, Oil & Gas, Metallurgy, Chemicals & Fertilizers including the Engineering fraternity from Consultants, EPC Contractors, Automation Component Suppliers & Equipment Manufacturers, System Integrators and many other industries.

ISA has been involved in promoting emerging technologies across the globe by a variety of ways such as:

- Developing and updating standards for existing & evolving technologies in automation related fields;
- Publication of Text-books, hand-books, journals, proceedings etc. on a wide array of automation related subjects from primary field sensors to integrated automation and management systems for various kinds of plants & processes;
- Facilitating Interface & interaction with other agencies like IEC, IEEE, EPRI, ASME and others to develop and maintain automation related standards with regular updating, keeping pace with the march of technology in various fields;
- Organising Training, Seminars/Workshops, Webinars and Exhibitions
- Carrying out certification programs for technicians, engineers and senior professionals.
- Recognizing the talented and the dedicated professionals in the field of Automation through various honours and awards
- Enabling Interaction with Student members, formation of student section and annual scholarships, competitions etc. are many interesting student programs of the ISA.

The ISA Delhi Section - ISA(D)

ISA Delhi Section had been formed almost a decade back and has progressed well since then with a membership of more than 350 and growing. ISA Delhi Section had taken many initiatives in the past including organizing two exhibitions ISA (D) EXPO' 05 & '07, a large number of seminars and workshops on emerging technologies. Regular Monthly technical exchanges on diverse topics are organised for the benefit of all members of ISA(D), thereby increasing the knowledgebase & technical capabilities of members.



ISA Delhi Section has taken quite a few initiatives in the recent past to better address the need for knowledge sharing among industry specific groups of Automation Engineers. Notably, within the overall ambit of ISA(D), two industry specific interest groups have already been created, one for the Power Industry namely Power Automation Technology group(or POWAT) and one for the Oil & Gas Industry called Petroleum & Natural Gas Industries Automation Domain(PNID). ISA (D) is also encouraging the farmation of a systems integrators forum, so as to share the vast scattered knowledge base resources of systems integrators community.

ISA Standards

Practical Solutions from Industry Experts

ISA Standards help automation professionals streamline processes and improve industry safety, efficiency, and profitability. Over 150 standards reflect the expertise from over 4,000 industry experts around the world. Since 1949, ISA has been recognized as the expert source for automation and control systems consensus industry standards.

Key Features, Advantages, and Benefits of Standards

Realize a direct return on investment by

- Lowering installation and start-up costs
- Reducing need to maintain large inventories
- Enabling interchangeability of components
- Improving design with less "custom" effort
- Increasing safety

Use of standards in industry

- Improves communication
- Provides practical application of expert knowledge
- Represents years of experience and avoids necessity of starting each project from ground up

Standards help you achieve operational excellence by

- Improving performance
- Lowering maintenance costs
- Reducing downtime
- Enhancing operability
- Saving money

ISA's Role in Developing Standards

More than 4,000 individuals cooperating with more than 140 committees, subcommittees, working groups and task forces are involved in ISA standards. They're developing standards in areas as diverse as ensuring the safety of electrical equipment used in hazardous locations to cost-savings for interfaces between industrial process control computers and subsystems.

How a Standard Saves Money

ISA's batch control standard illustrates how using a standard cuts costs. Food, pharmaceutical and specialty chemical companies build factories with increasingly sophisticated computer-driven automation. The batch standard ISA developed-ANSI/ISA-88.00.01 - shaves as much as 30 percent off the cost of designing the system and software used in these plants. ANSI/ISA-88.00.01 sets out a blueprint that engineers can use to make portions of the code interchangeable, which is less expensive than designing each piece from the ground up.

The savings extend beyond the facility's design, though. By using the batch standard, companies save as much as 10 to 15 percent off the typical cost of meeting Food and Drug Administration criteria for the reliability of automation equipment.

How a Standard Saves Lives

Other ISA standards focus on safety. ISA has developed standards for the performance requirements of toxic gas detectors, standards to keep electrical equipment from igniting flammable material and standards to ensure safety at nuclear power plants.

And some ISA standards can help an entire industry combine cost savings and safety. The most popular ISA standard is ANSI/ISA-5.1, Instrumentation Symbols and Identification. Developed in 1949 and most recently revised in 2009, these symbols are used in blueprints for everything from power plants to factories. If every contractor on a project knows the standard symbols, there are fewer communication problems that could lead to costly delays or safety problems.

Using Standards to Help Your Business Expand Globally

Your company has a product that's taken the United States by storm; now you want to expand globally. But there is a hitch or, as the engineers might tell you, a "technical barrier to trade." Your company's product, or the process by which it's made, doesn't meet international standards. Many ISA standards are also international standards, and our committees strive to stay current with evolving global standards. ISA administers three committees for the International Electro technical Commission (IEC), which is one of the two most widely recognized international standards groups, along with International Organization for Standardization (ISO).

How Your Company Can Take Advantage of ISA's Standards

- Buy ISA standards and train your employees to follow it.
- Help set a standard. ISA's committees are eager for help. Both voting and non-voting memberships are
 available. Voting members must have their employers' approval, in part because attending at least one meeting a
 year is expected. But we're cutting down on the time demands of committee membership by encouraging members
 to do a great deal of their work via e-mail. Non-voting members supply input but are not required to attend meetings.
 Apply online to volunteer.

Students

Students can come to automation from a variety of backgrounds and academic programs. It is sometimes difficult for you to find programs that concentrate on automation as a career or specialty. This potential variety can create challenges for students like you that are not seen in many areas of studies.

The essence of automation is that it is a multidisciplinary art, not a single discipline. You are required to know a lot about many things to function as an automation professional. Automation studies are rarely centred in one department. Automation students and faculty on a campus could come from any number of engineering areas. That means that published findings could appear in a number of journals and presented at a myriad of scientific conventions. This diversification makes it extremely difficult for students to stay current on the newest findings. It also means that you need to have a very open outlook on what will make you a good automation professional.

The ISA web site helps students more easily stay current on research without attending numerous expensive conventions or wading through non-automation related literature for the useful gems. Also, students can find the conferences they should attend to both gain information and networking possibilities, which can lead to job possibilities.

The ISA web site contains the Automation Body of Knowledge, from the very basics of sensors and controls to the most detailed industrial networking, enterprise integration, cyber security and safety information. When you have digested that Body of Knowledge, you will be ready to be a Certified Automation Professional, and you can find the tutorials and test materials here to help you.

The ISA Mentor Program for Young Professionals and Students

ISA's Mentor Program enables young professional ISA Members and Student Members to access the wisdom and expertise of seasoned ISA Members, while it offers veteran ISA professionals the chance to share their wisdom and make a difference in someone's career. A mentor can give a young professional guidance in his or her career or help a student determine if automation and control is the right path to follow.

ISA's Mentor Program is an online program, so there are no meetings to attend and there is no travel. ISA Members from all over the world can participate, and the relationship can develop and progress at the convenience of the mentor and protégé.

ISA Members are encouraged to register and participate in the program as mentors. Find out more about becoming a mentor.

ISA's younger Members and Student Members are urged to use this valuable Member benefit. Find out more about getting an ISA Mentor and how to select a mentor.

2014-2015 ISA Section Leaders Report Form

Name of Section: ISA DELHI SECTION District #: 14

Person Completing Form: S K Bardhan Position: President

Effective Date Leaders Take Office: 01/04/2014

Positions were confirmed by: Outgoing President ! Incoming President !

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Rohit Bhardwaj Cheif Patron



S.K. Bardhan President



R Priyamvada President-elect



P P Patil Vice President



Ashish Manchanda Secretary



Anil Chaudhary Treasurer



Rajiv Gupta Soc. Delegate



S Mahesh Kumar Alt. Delegate



N Rajesh Program Chair



S Sudershan Rao Education Chair



C Saroj Membership Chair



Manish Kumar Newsletter Editor



Radheyshyam Tiwari WebMaster



Arun Gupta Exhibit Chair



Anuja Thukral Marketing Chair



Ghanshyam Dwivedy Publications Chair



R K Bassi Honors & Awards



Prateek Srivastava Historian



Gaurav Jain Student Section Liaison



Ravinder Goyal Section-Division Liaison



R Shanti Devi Standards & Practices



S K Dhawan
Past Section President



R G Dhalwani Sr. Advisor



M P Singh Sr. Advisor



Late. S Verma Sr. Advisor



Prasenjit Pal Sr. Advisor



Alok Shrivastava Sr. Advisor



Atish Chakraborty Sr. Advisor



Ramphal Sr. Advisor



S Samanta Sr. Advisor



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Our seals are frequently used in the world's most demanding oil, gas and power generation projects. The seals are easily installed in floors, walls, decks, bulkheads and panels as well as in control cabinets, electrical enclosures and junction boxes.

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