



INDIAN INSTITUTE OF CHEMICAL ENGINEERS

HYDERABAD REGIONAL CENTRE

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ANNUAL REPORT: 2017-2018

6th July 2018

Respected dignitaries, esteemed members, students and invited guests, a very good evening to all of you. On behalf of the Executive Committee of Indian Institute of Chemical Engineers - Hyderabad Regional Centre (IICHE-HRC), I take this opportunity in extending a warm and hearty welcome to you all and your family members to this **59th Annual General Meeting (AGM) of Hyderabad Regional Centre.**

It is my privilege to place the annual report 2017-2018 before you. I hope this report copy is with you. Last AGM-2017 was held on 24.06.2017 at the Banquet Hall, Goodland Hotel, Habsiguda, Hyderabad. Nearly 100 members (including spouses and student award winners) attended the AGM. Executive Committee (EC) unanimously elected Smt. Sheela as the Chairperson for the year 2017-18. The following is the list of office bearers, Members, Co-opted Members of the Executive Committee of IICHE-HRC and Permanent Invitees for the year 2017-2018.

<u>OFFICE BEARERS</u>	<u>MEMBERS</u>	<u>PERMANENT INVITEES</u>
Smt. Sheela (NFC) Chairperson	Sri C. P. Ramulu (IICT Rtd) Prof. P. Shashikala (OUCT Rtd)	Prof. S. Venkateshwar, Past President - IICHE
Sri M. Ranga Rao (NFC Rtd) Vice Chairman and National Council Member, IICHE	Sri E. Venkatesham (NFC) Prof. R. Sridhar Rao (CBIT) Sri Chokkahula Apparao (NFC) Dr. S. Srinu Naik (OUCT)	Sri A. Bhasker Reddy, Past President – IICHE Sri G. V. Sethuraman, Past President - IICHE Prof. V. V. Basava Rao, Past Vice President - IICHE
Sri M.G.V. Chalapathi Rao (IICT Rtd) Vice Chairman	<u>CO-OPTED MEMBERS</u>	Prof. R. Shyamsunder, National Council Member, IICHE Dr. Vijay Kale, Past Chairman, IICHE - HRC
Dr. Sanjay Bhardwaj (ARCI) Hon. Secretary	Sri K. Ravichand (Free Lancer) Sri D. N. Singh (NFC) Sri Arun Anand (NFC)	<u>STUDENT CHAPTER COORDINATORS</u>
Sri S. Ilaiah (OUCT) Hon. Jt. Secretary		Sri S. Ilaiah (OUCT) Prof. R. Sreedhar Rao (CBIT) Prof. T. Sunil Kumar (NITW) Prof. S. V. Satyanarayana (JNTUACE) Prof. Dilip Kumar Bahera (JNTUACE) Prof. G. B. Radhika (BVRIT) Prof. Srikanta Dinda (BITSP, HYD) Prof. M. Mukunda Vani (CVSR-AGI) Sri Dipankar Das (JNTUH)
Sri M. Misra (NFC) Hon. Treasurer		

The elections for the Executive Committee were conducted by Prof. R. Shyam Sunder, Principal, Osmania University College of Technology (OUCT) & National council member of IICHE and the above mentioned Executive Committee was elected for the year 2017-19. I express my sincere thanks to him on behalf of HRC. Prof. V. V. Basava Rao has

been elected as national council member and Sri M Ranga Rao as Hon. Joint Secretary of IChE for the year 2017-18

Activities of the year

With the co-operation and support of all EC members and other committee, during this period, Thirteen Executive Committee meetings have been held and the following activities were carried out in 2017-18.

Seminar / Lectures Organized

- IChE - HRC in association with Anurag Group of Institutions (AGI) organized a lecture on “Needs and Challenges in Solid Fuel Utilization for Sustainable Future” by Dr. Pisupati V. Sarma, Professor and Chair of Energy Engineering Program, The Pennsylvania State University, USA on 15th December 2017 at the AGI. He spoke on crucial aspects associated with solid fuels. Issues discussed were relevant to academia, R & D, industry and society in general. Talk was very well received.



Prof. Pisupati V. Sarma delivering the lecture

- One-day “Seminar on Chemical Engineering and Technology (S - CHET): Advancements and Associated Safety Aspects” was organized on 24th January 2018 by Indian Institute of Chemical Engineers - Hyderabad Regional Centre (IChE - HRC) at Nuclear Fuel Complex (NFC) Hyderabad. Sri G. Kalyanakrishnan, the then Chief Executive and Distinguished Scientist, Nuclear Fuel Complex (NFC), Hyderabad was the chief guest and Dr. Dinesh Srivastava, the then Chief Executive designate, NFC was the guest of honour. Chief guest suggested that IChE should facilitate the interaction of students with experienced professionals from industry and R & D. The guest of honour emphasized upon the relevance of utilizing the researchers’ expertise in improving productivity and in solving industrial problems. Smt. Sheela, Chairperson, IChE – HRC and Dy. Chief Executive, NFC spoke about the need of having such seminars for professional development of practising engineers. Following lectures were delivered during technical sessions:
 - ✓ Dr. Y.V. Swamy, former Chief Scientist, Indian Institute of Chemical Technology (IICT) on “role of chemical engineers in controlling greenhouse gas industrial emission - its impact on climate change”
 - ✓ Dr. D.P. Rao, former Professor, IIT Kanpur on “random thoughts on changing landscape of chemical engineering”
 - ✓ Dr. P.G. Rao, Hon. Pro Chancellor, University of Science and Technology, Meghalaya on “the design of inherently safer chemical plants”

- ✓ Sri P.V.V. Rao, CEO, ESD Control Systems, Hyderabad on “hazards of static electricity in process industries” and
- ✓ Dr. T.N. Rao, Associate Director, International Advanced Research Centre (ARCI) on “indigenizing the materials technologies: a national necessity”

Seminar was attended by nearly 150 engineers, technologists and scientists. Sri E. Venkatesham, Executive Committee member, IICChE - HRC conducted the proceedings of the Seminar and Dr. Sanjay Bhardwaj, Hon. Regional Secretary, IICChE - HRC proposed the vote of thanks.

- A lecture on “critical chain project management and critical chain multi project management” by Dr. A. K. Rao, Former Director, Executive Education, Indian School of Business (ISB) Hyderabad was organized on 23rd April 2018 at Nuclear Fuel Complex (NFC), Hyderabad. Lecture was well-received and attended by over 100 scientists /engineers/students from industry, R & D labs and academic institutions.
- Indian Institute of Chemical Engineers - Hyderabad Regional Centre (IICChE-HRC) organized 11th M.P. Chary Memorial Lecture on 30th May, 2018 at Hyderabad. Lecture has been instituted in the memory of Sri M.P.



Smt. Sheela welcoming the gathering, seated on the dais (L to R) Dr. Sanjay Bhardwaj, Sri Ajit Rangnekar, Dr. G. Padmanabham and Sri Anantha Chary

Chary, who excelled as an entrepreneur. He was associated with the creation of Dr. Reddy's Laboratories Limited, Elbit Medical Diagnostics Limited, Magene Life Sciences Pvt Ltd and Globarena Technologies Pvt Ltd. Lecture was delivered by Sri Ajit Rangnekar, Director General, Research and Innovation Circle of Hyderabad (RICH) and former Dean of Indian School of Business (ISB). He spoke on the changing role of chemical engineers in present

context. He touched upon the need of continuous re-skilling by engineers and scientists so that gradually increasing expectations of the society can be met by developing innovative products and solutions. He opined that multi-disciplinary approach is crucial in developing efficient processes and useful products. Dr.



Sri Ajit Rangnekar delivering the 11th M.P. Chary Memorial Lecture

G. Padmanabham, Director - ARCI graced the occasion as the Chief Guest. In his address, he highlighted the need of interaction among students, scientists, production engineers and academicians to generate new ideas and translate them into usable products. He also mentioned future needs are in energy, environment

and efficient manufacturing. He mentioned that ARCI is carrying out R & D activities in this direction alongwith addressing the challenges associated with the translation of early stage R & D for technology transfer and commercialization. Smt. Sheela, Chairperson, IICChE - HRC welcomed the gathering and Dr. Sanjay Bhardwaj, Hon. Secretary, IICChE – HRC presented the vote of thanks. Sri E.



Dr. G. Padmanabham addressing the participants

Venkatesham, Executive Committee member, IICChE - HRC conducted the proceedings. Sri Anantha Chary - CMD -Globarena Technologies Pvt. Ltd. was present on the occasion. Over 150 representatives from R &

D, academia and industry attended the programme. EC members contributed towards successful organizing the programme.

IChE Council Meeting organized by Hyderabad Regional Centre



IChE Council meeting was organized by HRC on 1st May 2018 at Osmania University College of Technology. 17 council members and 4 representatives from south zone participated in the meeting. Alongwith the meeting, representatives of south zone regional chapters met with the council members and an industry - institute interaction programme was also organized. Contribution of EC members in organizing the event was appreciated.

Prof. Vinay K Srivastava, President, IChE being greeted by Prof. R. Shyam Sunder, Principal, Osmania University College of Technology during the council meeting

Student Chapter Activities

A: Inter-college event

- Student Chapter final competitions in Essay Writing, Elocution and Quiz were organized at Osmania University College of Technology (OUCT) on 3rd March 2018. A demo program on “Entrepreneurs Fellowship” was also conducted by Dr. M. Rajagopala Rao, Former Executive Director, Oil & Natural Gas Corporation (ONGC) Limited. Event was attended by student chapters from National Institute of Technology (NIT) Warangal, OUCT, Jawahar Lal Nehru Technological University (JNTU) Hyderabad, JNTU Anantapur, Anurag Group of Institutions (AGI) Hyderabad, B V Raju Institute of Technology (BVRIT), Medak and Chaitanya Bharathi Institute of Technology (CBIT) Hyderabad

B: College-wise events

Jawahar Lal Nehru Technological University (JNTU) Hyderabad:

- Student Chapter College Level Competitions in Essay Writing, Elocution and Quiz Programs on 06th February 2018
- One Day Workshop on Tech in Pharma by Dr. G. Narahari Sastry, Scientist and Head molecular modelling group, IICT Hyderabad on 15th February 2018
- Expert Lecture on Real Time Optimization & Control in Process Industries by Dr. B. Sankar Rao, Senior Manager, Schneider Electric on 5th March 2018
- Technical fest “GENOS 2K18”, an annual event was conducted for two days involving all the student chapters, stalwarts from industries, Academicians from IITs and Universities in India and abroad during 13th and 14th March 2018. JNTUH chemical engineering department organized the event in association with IChE - HRC
- Expert Lecture on Environment, Health and Safety in Pharma Sector by Dr. J.V.N. Reddy, Senior Vice President, Aurobindo Pharma Ltd on 20th March 2018

JNTU Anantapur

- Student Chapter College Level Competitions in Essay Writing, Elocution and Quiz Programs on 24th, 25th & 27th January 2018
- Fusion 2K18, *Igniting Minds*, A National Level Students' Symposium for Engineering and Pharma undergraduates on 27th March 2018 was organized by JNTUA chemical engineering department in association with IChE - HRC

Osmania University College of Technology (OUCT)

- Smart India Hackathon 2018: 24 students brainstormed to find solutions of various problems that India is facing now
- 8 students participated and won prizes in drama and debate competitions in Osmania University Centenary Celebrations intercollegiate Competitions 2018
- Youth of University College of Technology Association (YUCTA) in collaboration with Gandhi Medical College, Secunderabad organized a Blood donation camp on 17th February 2018
- Dr. I.V. Subrahmanyam, Consultant – Cement Technology and Faculty, S.V. University College of Engineering delivered a lecture on “Cement Manufacture: Modern Trends & Heat Balance Concepts” on 23rd February, 2018
- Five-day course on “Particle Engineering in the Pharmaceutical Industry: Crystallization and Colloidal Engineering” was conducted during 5th - 9th March, 2018 under Ministry of Human Resource Development, Government of India program titled ‘Global Initiative of Academic Networks (GIAN)’.
- Annual national level techno-cultural fest, Technosmania 2k18, a 3-day symposium, was organized during 22nd, 23rd & 24th March 2018. 5 major departments (Chemical, Food Technology, Textile Technology, Biotechnology and Pharmacy) of OUCT organized the event in association with IChE – HRC. Paper presentations, poster presentations, technical quiz and general quiz were different components of the event.

Anurag Group of Institutions (AGI)

- Department of Chemical Engineering of AGI, Hyderabad in association with IChE-HRC organized a two-day national level technical fest “RASAYANIKA 2K17” with the theme “Sustainable solutions towards a greener economy” on 15th and 16th September 2017. The scope of this symposium was to provide a platform for young engineers to show case their talent and to explore new areas of research in the field of Chemical Engineering.

Rasayanika 2K17 was conducted under the guidance of Dr. M. Mukunda Vani, Head of Chemical Engineering Department, AGI and Smt. M. Shireesha, Assistant Professor, AGI. Smt. Sheela, Chairperson-IChE - Hyderabad Regional Centre and Dy. Chief Executive, Nuclear Fuel Complex was the Chief

Guest for the inaugural session. Smt. C. Sharada Prabhakar, Scientist G & Deputy Director, Advanced Composite Centre, DRDO, Hyderabad was the Guest of Honour and Sri Milind Murumkar, Advisor, AFR, Bharathi Cement Private Limited was the Special Guest at the event. Sri Gopal P. Puranik, Senior Consultant/Advisor at Stratview Research and Former VP, Biomax Life Sciences was Chief Guest for the valedictory session. Several students,



Dr. M. Mukunda Vani, Smt. Sheela, Smt. Sharada Prabhakar and Sri Milind Murumkar (L to R) at the inauguration of Rasayanika 2K17

faculty members, R & D and industry professionals across the country attended the event. Eminent speakers addressed the themes like sustainability in cement industry, cellulose and carbon fiber technology etc.

- Department of Chemical Engineering of AGI organized following guest lectures:
 - ✓ By Dr. Murali Banavoth, Assistant Professor, Department of Chemical Sciences, University of Hyderabad on “Solar Energy Cells and Advanced Solar Energy Materials” on 19th August 2017. The speaker discussed various types of Solar Energy Cells viz. Inorganic Solar Cells, Organic Solar Cells and Hybrid Solar Cells.
 - ✓ By Sri Milind Murumkar, Advisor - Alternative Fuels and Raw Materials (AFR), VICAT India Group on “Sustainable Solutions for the Management of Wastes” on 15th July 2017. The lecture by Sri Murumkar provided technical insights to the students about the Cement Industry and its importance in eliminating wastes. Various case studies were also discussed.



Students at Nuclear Fuel Complex, Hyderabad

- Student chapter of IICHE-HRC in association with Department of Chemical Engineering of AGI organized an industrial visit to Nuclear Fuel Complex (NFC), Hyderabad for the students of III year B.Tech. (Chemical) on 24th July 2017. Students visited Zirconium fabrication plant, Uranium oxide plant, Zirconium oxide plant.

- Department of Chemical Engineering of AGI organized an Industrial visit to Prathista Industries Limited (PIL), Hyderabad for the students of III year B.Tech (Chemical) on 18th August 2017. PIL is in the business of manufacturing and marketing eco-friendly bio-technology products.
- Department of Chemical Engineering of AGI organized an Industrial visit to sewage water treatment plant, Hyderabad for the students of II-year B.Tech. (Chemical) on 27th October 2017. In this visit, the demonstration of sewage water treatment plant was shown. Stages of filtration and sedimentation followed by biological degradation and separation were explained to the students.



Students visit to sewage water treatment plant, Hyderabad

- Student Chapter College Level Competitions in Essay Writing, Elocution and Quiz Programs were organized on 22nd & 23rd January 2018
- Industrial Visit to Clair Industries - Hyderabad was organized on 15th Feb 2018
- A Guest Lecture titled “Petroleum Industry: Emerging Trends and Opportunities for Engineers” was delivered by Dr. Keshav Rao V, Former Senior Vice President, Oil and Gas Business, Reliance Natural Resources Ltd. on 16th Feb 2018
- A Guest Lecture titled “Promoting Industrial Development & Social Welfare through Innovative Membrane Technology” was delivered by Dr. S. Sridhar, Principal Scientist, CSIR-Indian Institute of Chemical Technology, Hyderabad on 22nd February 2018
- A Guest Lecture titled “Applications of Theory to Process Industries” was delivered by Sri G. Vijay Kumar, Head of Process Engineering Group, Hyderabad on 23rd February 2018

C: Miscellaneous IChE - HRC Support to Students

- IChE – HRC was involved in getting guidance at ARCI Hyderabad for team of 6 OUCT students (Smita Shivraj Dasari, Jakka Vishwasree, Himaja Vemula, Gollapalli Surya Swati, Rahul Muthavarapu, Shashank Revuru), participating in “Smart India Hackathon 2018” on the innovation “Dye Sensitized Solar Cell”. A five-day competition was during June 18-22, 2018 at IIT Guwahati to incite entrepreneurship among students. The team secured third place and won a cash prize of Rs. 50,000/-.
- 3 students (Ekaambari Kodikal, Rahul Ponnala, Mohammad Mustafa) from AGI were assisted for internship training of 3 months at ARCI Hyderabad

Felicitations

- Prof. R. Shyamsunder, National Council Member, IChE and Principal, Osmania University College of Technology (OUCT); Dr. Ch Venkateshwarulu, Principal, B.V. Raju Institute of Technology (BVRIT); Dr. Vijay Kale, Former Chief Scientist, Indian Institute of Chemical Technology (IICT) and then Chairman, IChE - HRC were felicitated for their outstanding contributions to realize the vision of the IChE – HRC during AGM - 2017.

Obituary

- Deep condolences on the sad demise of Late Mr. M. Pradeep Kumar(LM-44883), Senior Scientist, CSIR – Indian Institute of Chemical Technology (IICT), Hyderabad who passed away on 18th August, 2017.
- Deep condolences on the sad and sudden demise of Dr. K.V. Raghavan, former Director, CSIR-Indian Institute of Chemical Technology (IICT), Hyderabad on 12th October 2017. Dr Raghavan was INAE Distinguished Professor, a Fellow of IChE and a fellow of the Indian National Academy of Engineering (INAE). He provided his vision, insights and wisdom to several leadership positions that he held during his life-time at premier institutions like IICT, Atomic Energy Regulatory Board (AERB), Defence Research & Development Organization (DRDO), and Central Leather Research Institute (CLRI), Chennai. He made exemplary contributions to the profession of chemical engineering and technology. He was the past President of Indian Institute of Chemical Engineers (1997).

We offer our heartfelt condolences to the bereaved families of the above members.

IChE-HRC got the support of all the Student Chapters/coordinators mentioned above and various industrial organizations such as NFC, Clair Engineers Pvt. Ltd, Enfab Industries, and also from the different educational institutions in conducting various programs successfully. We take this opportunity to thank M/s. T. Raghavendra and Associates for auditing the Annual Accounts for the financial year ending on 31st March 2018. I wish to thank our chairperson Mrs. Sheela and all our Executive Committee Members for their support. I am thankful to Sri M. Ranga Rao and Sri K Ravichand for conducting student competitions and student chapter activities with the help of the student chapter coordinators. Our complete Executive Body would like to put on record, the services of Prof. S. Venkateshwar, Sri. A Bhasker Reddy, Sri G. V. Sethuraman and Dr. K Sainath - Managing Director-Clair Engineers Pvt Ltd. for their valuable guidance in executing all the programs successfully and to Sri C. P. Ramulu for his continuous assistance in guiding while auditing the Annual accounts of HRC every year.

With this, I submit this report, together with the audited statement of Accounts, for the approval of esteemed members of the IChE -HRC.

Thank you one and all.

Sd/-

(Dr. Sanjay Bhardwaj)
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