

## N.8: Awards and Honours

### N.8.1: DAE Excellence in Science, Engineering and Technology Awards 2016

The Department of Atomic Energy has instituted the Excellence in Science, Engineering and Technology Awards Scheme from the year 2006 to recognize outstanding accomplishments and exceptional achievements of the DAE staff, who are engaged in scientific research, technology development, engineering/project implementation, teaching, healthcare and supporting services. There are ten categories of awards under the scheme and one Meritorious Service Award for auxiliary, administration, account services etc. These awards are given annually. The awards for the year 2016 were given on the Founder's Day on October 30, 2017 in BARC. The following scientists, engineers and staff members bagged the DAE awards for the year 2016.

#### N.8.1.1: Scientific and Technical Excellence Awards

**1. Shri Praveen P. Deshpande**, SO/H and Head, Laser Electronics & Controls Section, Laser Controls and Instrumentation Division, Laser Group, RRCAT has been conferred with "Scientific and Technical Excellence Award" for the year 2016 for his contribution to the "Development of machine



vision based fuel inspection systems for NFC, metrology system for BARC and control electronics for IRFEL and VTS for testing SCRF cavities". The award carried a cash prize of ₹ 1 Lakh, a citation and a medal.

**2. Shri S. Raghavendra**, SO/G and Head, Superconducting Cavity Processing and Testing Lab., Superconducting Cavities Development Division, Proton Accelerator Group, RRCAT has been conferred the "Scientific and Technical Excellence Award" for the year 2016 for his contributions in the field of "Setting up of inspection, mechanical polishing, chemical processing, thermal processing and vertical testing facility at 2 K for 1.3 GHz and 650 MHz niobium superconducting RF cavities". The award carried a cash prize of ₹ 1 Lakh, a citation and a medal.



**3. Dr. J. Jayabalan**, SO/G and Head, Nano Science Lab., Materials Science Division, Materials Science Group, RRCAT, has been conferred the "Scientific and Technical Excellence Award" for the year 2016 for his contribution to the "Development of ultrafast spectroscopy related experimental and data analysis techniques". The award carried a cash prize of ₹ 1 Lakh, a citation and a medal.



#### N.8.1.2: Young Scientist Award

**Dr. Mahesh Kumar Swami**, SO/F, Laser Biomedical Applications Section, Laser Group, RRCAT, has been conferred the "Young Scientist Award" for the year 2016 for his contributions in the field of tissue optical polarimetry. The award carried a cash prize of ₹ 50,000, a citation and a medal.



#### N.8.1.3: Young Engineer Award

**Shri Rahul Rana**, SO/D, Control Systems Lab., Accelerator Control Systems Division, Electron Accelerator Group, RRCAT has been conferred the "Young Engineer Award" for the year 2016 for his excellent contributions in the field of "Model predictive control for global slow orbit control system" in Indus-2 at RRCAT, Indore. The award carried a cash prize of ₹ 50,000, a citation and a medal.



#### N.8.1.4: Meritorious Technical Support Awards

**1. Shri Madhav Singh Lodhi**, Foreman/B, Indus Accelerator Division, Electron Accelerator Group has been conferred the "Meritorious Technical Support Award" for the year 2016 for his contributions to the "Development of RF cavities and RF accelerating structures". The award carried a cash prize of ₹ 20,000, a citation and a medal.



**2. Shri V. I. Joby** Foreman/C, Design and Manufacturing Technology Division, Technology Development and Support Group, has been conferred the "Meritorious Technical Support Award" for the year 2016 for his contributions to the "Manufacturing of accelerator and laser components". The award carried a cash prize of ₹ 20,000, a citation and a medal.



**N.8.1.5: Meritorious Service Award**

**Shri Bheru Singh**, Driver Grade-I, Indus Operations, Alignment and Beam Diagnostics Division, RRCAT, has been conferred the "Meritorious Service Award" for the year 2016 for the excellent services rendered by him as vehicle driver of the Indus Accelerator Programme. The award carried a cash prize of ₹ 20,000, a citation and a medal.



**N.8.1.6: Group Achievement Awards**

1. A group comprising of 21 members was conferred the Group Achievement Award for the year 2016 for their excellent team work in the field of "Development of engineered high average power intra-cavity frequency doubled Nd:YAG solid state laser". The award carried a cash prize, citation and medals to the individual members. The award was received by the Group Leader, **Dr. K. S. Bindra**, SO/H and Associate Director, Laser Group, RRCAT.



2. A group comprising of 99 members was conferred the Group Achievement Award for the year 2016 for their excellent team work for successfully accomplishing the activity titled "Design, development, deployment and commissioning of indigenous 505.8 MHz OFE copper RF cavity in Indus-2 synchrotron radiation source". The award carried a cash prize, citation and medals to the individual members. The award was received by the Group Leader, **Shri M. Lad**, SO/H and Head, RF Systems Division, Proton Accelerator Group, RRCAT.



3. A group comprising of 16 members was conferred the Group Achievement Award for the year 2016 for their excellent team work on "Ion acceleration and hot electron transport studies in ultra-short high intensity laser-matter interaction". The award carried a cash prize, citation and medals to the individual members. The award was received by the Group Leader, **Dr. J. A. Chakera**, SO/H and Head, Laser Plasma Section, Laser Group, RRCAT.



4. A group comprising of 170 members was conferred the Group Achievement Award for the year 2016 for their excellent team work for successfully completing the activity "Development and commissioning of Infra-Red Free Electron Laser". The award carried a cash prize, citation and medals to the individual members. The award was received by the Group Leader, **Dr. K. K. Pant**, SO/H and Head, FEL & Utilization Section, Materials Science Group, RRCAT.



**N.8.2: Awards to Shri R. S. Shinde**

Shri R. S. Shinde, SO/H and Head, Accelerator Magnet Technology Division, has been awarded **Lifetime Achievement award in Magnetic Engineering** by Venus International Foundation during its 3<sup>rd</sup> Annual Research Meet –ARM 2017 held on November 11, 2017 at Chennai. The award, given in recognition of his sustained effort and accomplishments in several aspects of magnet technology, carried a certificate, bronze medal and memento.



Shri R. S. Shinde has also been conferred **Bharat Jyoti Award** by India International Friendship Society, New Delhi on Dec 20, 2017. The award, which carried a medal and a certificate, has been given in recognition of his meritorious services, outstanding performance, remarkable role in science, technology and development, and lifetime outstanding services to various section of the society.

**N.8.3: Award of Doctor of Philosophy (Ph. D.) Degree**

The Homi Bhabha National Institute (HBNI), a Deemed University has awarded Ph.D. Degree to following employees / students of RRCAT:

**1. Dr. Smritijit Sen** was awarded Doctor of Philosophy in Physical Sciences on the dissertation, titled "Theoretical studies on superconducting and normal state properties of some Fe based superconductors" which was supervised by Dr. Haranath Ghosh.



**2. Dr. Sujan Kar** of Laser Materials Section was awarded Doctor of Philosophy in Physical Sciences on the dissertation, titled "Growth and characterization of doped and undoped lithium niobate and lithium tetraborate crystals in bulk and nano form", which was supervised by Dr. K. S. Bartwal.



**3. Dr. Ali Akbar Fakhri** of Accelerator Physics Section was awarded Doctor of Philosophy in Physical Sciences on the dissertation, titled "Study of beam injection, beam optics and insertion devices for synchrotron radiation source: a case study of Indus-1 and Indus-2". Dr. Arup Banerjee was the Guide and Shri Gurnam Singh was the Technology Advisor.



**4. Dr. Salahuddin Khan** of Materials Science Division was awarded Doctor of Philosophy in Physical Sciences on the dissertation, titled "Effect of surface and interface on the carrier dynamics of quantum wells", which was supervised by Dr. Rama Chari.



**5. Dr. Sushil Kumar Sharma** of Laser Materials Section was awarded Doctor of Philosophy in Physical Sciences on the dissertation, titled "Growth and characterization of KDP, LAP and ZCTC crystals for non-linear optical applications", which was supervised by Dr. K. S. Bartwal.



**6. Dr. Manoj Kumar Saxena** of Fibre Sensors & Optical Spectroscopy Section was awarded Doctor of Philosophy in Engineering Sciences on the dissertation, titled "Study of non-stationary signal models for optical fiber based sensors". Dr. S. V. G. Ravindranath, BARC, Mumbai was the Guide and Shri Rajesh Arya, RRCAT, Indore was the Technology Advisor.



**7. Dr. Yashvir Kalkal** was awarded Doctor of Philosophy in Physical Sciences on the dissertation, titled "Theoretical studies on electron beam based compact terahertz sources", which was supervised by Dr. Vinit Kumar.



**N.8.4: Best Thesis Award**

**Shri Shreekant Barnwal**, SO/E, High Energy Density Physics Laboratory, Laser Plasma Section, has been conferred the Best Thesis Award at the DAE - BRNS National Laser Symposium (NLS-26) held at BARC, Mumbai during December 20 - 23, 2017. The title of the thesis was "Study on coherent soft x-ray generation from capillary discharge plasmas". The award consisted of a Certificate from Indian Laser Association (ILA) and a prize money of ₹ 7500.



**N.8.5: Best Poster Awards**

**N.8.5.1: Best poster awards in 26<sup>th</sup> DAE-BRNS National Laser Symposium held at BARC Mumbai during Dec. 20-23, 2017**

Following four posters of RRCAT received the best poster awards of the Indian Laser Association during the DAE - BRNS National Laser Symposium (NLS-26) held at BARC, Mumbai during December 20 - 23, 2017. The award carried a cash prize of ₹ 2500 and a citation. The details of the poster papers are given below:

1. *Title:* Evolution of laser cooled Rb atom cloud in a time varying radio-frequency dressed potential

*Authors:* Arijit Chakraborty, S. R. Mishra and S. P. Ram

**Shri Arijit Chakraborty**, SRF, HBNI who presented the poster paper, received the award.



2. *Title:* Fast electron generation by ponderomotive force acceleration in high intensity laser foil interaction.

*Authors:* T. Mandal, V. Arora, A. Moorti, J. A. Chakera and P. A. Naik

**Shri T. Mandal**, SO/D, Laser Plasma Section, who presented the poster paper, received the award.



3. *Title:* Laser cleaning of Cr layer from fused silica mirror surface using ns pulses

*Authors:* Ambar Choubey, Sabir Ali, Praveen Yadav, K. Ranganathan, B. N. Upadhyaya, M. H. Modi and K. S. Bindra

**Dr. Ambar Choubey**, SO/D, Laser Development and Industrial Applications Division, who presented the poster paper, received the award.



4. *Title:* Development of high temperature (~900 °C) distributed fiber Bragg grating sensor

*Authors:* J. Kumar, S. K. Agrawal, O. Prakash, S. K. Dixit and S. V. Nakhe

**Shri J. Kumar**, SO/E, Fibre Sensors and Optical Spectroscopy Section, who presented the poster paper, received the award.



**N.8.5.2: Shri Rijul Roychowdhury**, SRF, HBNI received one of the best oral presentation award during Annual Science Day Celebrations 2017 & Research Scholars Workshop in Material Physics, held at UGC-DAE Consortium for Scientific Research, Indore during December 14-15, 2017. The title of the presentation was "Photoelectron spectroscopy of GaP grown on Si, Ge and GaAs substrate". The award carried a cash prize of ₹ 1000 and a certificate.



**N.8.5.3: Dr. Vishal Dhamgaye**, SO/E, Lithography and Electron Microscopy Lab., Synchrotron Utilization Section, RRCAT received the best paper award in the "Eighth ISSS International Conference on Smart Materials, Structures & Systems (ISSS 2017)" held at Indian Institute of Science, Bengaluru during July 5-7, 2017. The title of the presentation was "X-ray wave propagation simulation of x-ray focusing microstructures" authored by V. S. Chinthulal and Vishal P. Dhamgaye. The award carried a certificate.



## N.9: New Recruits

RRCAT welcomes the following personnel who have joined during July to December 2017.

- Kum. Ayushi Trivedi, SOC, SUS
- Shri Kavish Bhardwaj, SOC, LPAS
- Kum. Shikha Mishra, SOC, LPS
- Shri Nitesh Mishra, SOC, RFSD
- Kum. Payal Taya, SOC, MSD
- Shri Nidhin S.L., SOC, PLDD
- Kum. Rashmi Gangwar, SOC, HRDS
- Dr. (Smt.) Savita Kumawat, SOC, RMC
- Dr. (Smt) Manisha Chauhan, SOC, RMC
- Shri Kaptan, SAC, CSD
- Shri Amar Kuldeep Lakra, Techn/B, PHPMD
- Shri Laxman Soren, Techn/B, SCDD
- Shri Sunil Kumar Meena, Techn/B, LPS
- Shri Sarbeswar Sardar, Techn/B, FES
- Shri Jaysuria Marendy, Techn/B, IAD
- Shri Prabhu, Techn/B, PCD
- Kum. Divya Dhurwey, Techn/B, CSD
- Shri Sanjay Kumar, Techn/B, LCDFS
- Shri Arjun Kumar Meena, Techn/B, BDCSD
- Shri Raviparkash Shah, Techn/B, BDCSD
- Smt. Supriya Gopalakrishnan, UDC, ADMIN
- Smt. P. Vairamani, UDC, ADMIN

## N.10: Superannuations

The following RRCAT colleagues retired during July to December 2017. The RRCAT family wishes them a happy and healthy post-retirement life.

- Shri S.S. Kulkarni, SOH, CSD  
DoJ: 01-08-1980, DoR: 31-07-2017
- Shri Bijendra Singh, SOH, LMPD  
DoJ: 31-07-1982, DoR: 31-08-2017
- Shri K.K. Sharangpani, SOG, LPSD  
DoJ: 06-05-1982, DoR: 31-10-2017
- Dr. Virendra Nath Rai, SOG, SUS  
DoJ: 31-05-1990, DoR: 31-07-2017
- Shri Tribhuwan Singh, SOF, PPSD  
DoJ: 20-02-1984, DoR: 31-12-2017
- Shri Pravin Kumar Kanungo, SOF, CSD  
DoJ: 06-09-1984, DoR: 31-08-2017
- Shri Ram Shiroman, SOE, UHVTS  
DoJ: 07-11-1984, DoR: 31-07-2017
- Shri Surendra Prasad, SOE, CSD  
DoJ: 23-01-1986, DoR: 31-12-2017