कार्यक्रम अनुसूची

Programme schedule

DAE-BRNS

भारतीय कण त्वरक सम्मेलन

18-21 नवंबर, 2019

अंतर-विश्वविद्यालय त्वरक केंद्र, नई दिल्ली

DAE-BRNS

Indian Particle Accelerator Conference

November 18-21, 2019

Inter-University Accelerator Centre, New Delhi

Monday 18th November

10:00-11:00	Inauguration and address by the Chief Guest: *Prof. D. P. Singh,* *Chairman, University Grants Commission.*
11:00-11:15	Inauguration of Industrial Exhibition and Group Photograph.
11:15-12:00	**High Tea**

Plenary Session 1 (Main Auditorium)
Chair: Prof A C Pandey **12:00-13:00**

12:00 12:30	Overview of Accelerator Activities at RRCAT *Speaker: Shri Debashis Das, RRCAT*
12:30-13:00	Accelerators for Accelerator Mass Spectrometry Program : Upcoming National Geochronology Facility at IUAC, New Delhi *Speaker: Dr. S. Chopra, IUAC*
13:00-14:00	**Lunch**

Parallel Session A1 (Seminar hall , Laboratory Complex)
Chair: Dr S Chopra **14:00-16:00**

14:00-14:15	Operational Status K130 Variable Energy Cyclotron. *Speaker: Mr. Prodyut P.S. Chakraborty, VECC*
14:15-14:30	Development and Commissioning of Compact Digital LLRF System for Indus-2 SRS. *Speaker: Mr. Nitesh Tiwari, RRCAT*
14:30-14:45	Three decades with 15 UD Pelletron Accelerator at IUAC, Delhi. *Speaker: Mr. Rajan Joshi, IUAC*
14:45-15:00	Physics Design Studies For Proposed High Brightness Synchrotron Radiation Source (HBSRS) In India. *Speaker: Mr. Ajay Ghodke, RRCAT*
15:00-15:15	Low Emittance Optics Optimization During Operation of Indus-2 *Speaker: Dr. Ali Akbar Fakhri. RRCAT*
15:15-15:30	Betatron Coupling Measurement and Its Correction in Indus-2 Storage Ring. *Speaker: Mr. Riyasat Husain, RRCAT*
15:30-15:45	Design studies for a THz-FEL at RRCAT. *Speaker: Mr. Ravdheer Saini, RRCAT*

Parallel Session A2 (Main Hall, Auditorium) **Chair: Dr Pitamber Singh**	**14:00-16:00**
14:00-14:15	Performance Studies of 1 MW CW Klystron Under Pulsed Operating Condition Using 100 kV, 20 A Long Pulse Converter Modulator. *Speaker: Mr. Reghu Thekkeppat, RRCAT*
14:15-14:30	Design, Development and Testing of High Voltage and High Frequency Transformer for High Power DC Accelerator. *Speaker: Mr. Rupesh Patel, BARC*
14:30-14:45	RF activities and recent development of RF systems of VECC-RIB. *Speaker: Dr. Hemendra Kumar Pandey (VECC)*
14:45-15:00	Development of RF components for SRS Indus-2 and HTS. *Speaker: Mr. Ramesh Kumar, RRCAT*
15:00-15:15	Realization of 107.5MHz RF Power System for High Power Re-circulating Accelerator. *Speaker: Mr. Mukesh Kumar Jain, RRCAT*
15:15-15:30	Design and Development of Accelerating Test Tube Facility for DC Electron beam accelerator. *Speaker: Mr. S Dewangan, BARC*
15:30-15:45	High Stability, Low Ripple, Precision Electron Gun Filament Heating DC Power Supply Floating at -30 kV DC. *Speaker: Mr. Apollo Kasliwal, RRCAT*
Parallel Session A3 (Seminar Hall, Auditorium) **Chair: Dr Ajithkumar B P**	**14:00-16:00**
14:00-14:15	High Density Analog Readout Module on VME Bus For Accelerator Control Applications. *Speaker: Dr. Kundan Singh, IUAC*
14:15-14:30	Development of Data Acquisition System for Eccentricity Measurement Setup of Five-cell 650 MHz SCRF Cavity. *Speaker: Mr. Santosh Chauhan ,RRCAT*
14:30-14:45	Design and Development of Low Level RF (LLRF) Control System for RF Transmitters operated at 37.8 MHz.. *Speaker: Mr. Tapan Kumar Mandi , VECC*
14:45-15:00	EPICS DAQ System For Beam Position Monitoring of Spiral 2 Linac at GANIL. *Speaker: Mr. Sandeep Bharade, BARC*
15:00-15:15	Features and Qualification Tests of Interlock, Protection and Monitoring System for 7KW Solid State RF Power Amplifier. *Speaker: Mrs. Sujo Cheeran, BARC*
15:15-15:30	EPICS-Based LINAC RF Control System at PLF Mumbai. *Speaker: Dr. Sanjoy Pal, TIFR*
15:30-15:45	Development of Digital Feedback Control loop for 650MHz Superconducting RF cavity in HTS. *Speaker: Mr. Nibandh Kumar, BARC*

16:00-16:30 **Tea**

Parallel Session B1 (Seminar hall , Laboratory Complex) **Chair: Dr P N Prakash**	**16:30-17:30**
16:30-16:45	Direct Observation of the Viscous Layer Formation and Breakdown during Electro Polishing of Niobium and Its Co-relation with Surface Morphologies. *Speaker: Mr. Aniruddha Bose ,RRCAT*
16:45-17:00	Physics Design Study of Multispoke Resonators and their Comparison with Single Spoke Resonator. *Speaker: Mr. Rahul Gaur ,RRCAT*
17:00-17:15	Study of wake-field and loss factor in $\beta_g = 0.63$ and $\beta_g = 0.8$ elliptic cavities for HEHIPA. *Speakers: Mr. Alok Ghosh, BARC*
17:15-17:30	Tuning Algorithm for Cure of Mode Mixing in an RFQ Linac. *Speaker: Mr. Rahul Gaur ,RRCAT*
Parallel Session B2 (Main Hall, Auditorium) **Chair: Dr Manjiri Pande**	**16:30-17:30**
16:30-16:45	Recent Trends in High Power Solid-State Amplifiers for Particle Accelerators. *Speaker: Dr. Akhilesh Jain, RRCAT*
16:45-17:00	200kV, 15mA High Voltage DC Power Supply Characterization. *Speaker: Mr. Amal S., IPR*
17:00-17:15	Development & Commissioning of 150 KW RF Amplifier for K130 RTC. *Speaker: Mr. Samares Kumar Manna, VECC*
17:15-17:30	Design and development of ICVG disk resonator based 650 MHz strip line ferrite circulator for Proton Linac. *Speaker: Mr. Manjeet Ahlawat, RRCAT*
Parallel Session B3 (Seminar Hall, Auditorium) **Chair: Dr Arup Bandyophadyay**	**16:30-17:30**
16:30-16:45	Closed Loop Control of Symmetrical Cockcroft-Walton High Voltage Generator. *Speaker: Mr. Arka Mitra, BARC*
16:45-17:00	Control System for first trial run of FDG production at DAE Medical Cyclotron Facility Kolkata. *Speaker: Mr. Umashankar Panda, VECC*
17:00-17:15	120 MSPS VME Based ADC Card for Digital BPI. *Speaker: Mr. Rahul Rana, RRCAT*
17:15-17:30	Development for Thermometry System for Quench Detection of 650 MHz Five Cell SCRF Cavity during Cold Test. *Speaker: Mr. Anand Yadav, RRCAT*
17:30-18:30	ISPA Meeting
18:30-18:45	End of Day 1, Buses to Hotels

Tuesday 19th November

Plenary Session 2 (Main Hall, Auditorium) Chair: Dr D Kanjilal	9:00-11:00
9:00-9:30	Status and Progress of Fermilab's Proton Improvement Plan-II (PIP-II) Project. *Speaker: Dr. Lia Merminga, FNAL*
9:30-10:00	High Energy High Luminosity e^+ e^- Collider using Energy-Recovery Linacs. *Speaker: Dr. Vladimir Litvinenko, BNL*
10:00-10:30	Overview of Accelerator Activities at BARC. *Speaker: Dr. S. Krishnagopal, BARC*
10:30-11:00	Medical Application from technologies in Particle Physics. *Speaker: Dr. Archana Sharma, CERN*

11:00-11:30 **Tea**

Plenary Session 3 (Main Hall, Auditorium) Chair: Dr Lia Merminga	11:30-13:00
11:30-12:00	Efforts in capacity building for development of pulsed proton accelerators on a long term perspective. *Speaker : Shri P. Shrivastava, RRCAT*
12:00-12:20	Commissioning Results of the 3 MeV LEHIPA RFQ *Speaker: Dr. SVLS Rao, BARC*
12:20-12:40	Design and Development of Low Beta 650 MHz Elliptic SCRF Cavity at VECC under IIFC collaboration *Speaker: Mrs. Sudeshna Seth, VECC*
12:40-13:00	ESCORT as next generation Hadron Therapy machine *Speaker: Dr. Tanuja Dixit, SAMEER*

13:00-14:00 **Lunch**

Parallel Session C1 (Main Hall, Auditorium) Chair: Dr Arup Bandyopadhyay	14:00-16:00
14:00-14:15	Design and Development of 1MV, 100kW Symmetrical Cockcroft-Walton generator for the Trombay DC Electron Accelerator for Waste Water Treatment Application. *Speaker: Mr. D. K. Sharma, BARC*
14:15-14:30	Study of Low Momentum Compaction Factor Optics and Its Implementation in Indus-2. *Speaker: Mr. Abdurrahim, RRCAT*
14:30-14:45	Design of 100 MeV Proton Accelerator for Radio-Isotope Production. *Speaker: Dr. Shweta Roy, BARC*
14:45-15:00	Studies on the Effect of RF power on the Plasma Potential of a 6.4 GHz ECR Ion Source. *Speaker: Mrs. Mahuwa Bhattacharjee, VECC*
15:00-15:15	Physics Design Studies for Accelerating Section of the 200 MeV Injector Linac for High Brilliance Synchrotron Radiation

	Source. *Speaker: Mrs. Parul Arora, RRCAT*
15:15-15:30	Safety Aspects of Particle Accelerator Facilities in Indian Context. *Speaker: Mr. R. K. Goyal, BARC*
15:30-15:45	Mechanical Design, Fabrication & Assembly of Drift Tube Linac at IUAC, New Delhi. *Speaker: Mr. Rajeev Ahuja, IUAC*
Parallel Session C2 (Seminar Hall, Auditorium) **Chair: Dr V S Pandit**	**14:00-16:00**
14:00-14:15	Installation, Commissioning and Operational Experience of a 400kV Accelerator for Dual Ion Irradiation System. *Speakers: Mr. Suresh K., IGCAR*
14:15-14:30	Analytical Study of Buffer Gas Cooling of Ion Beams using Viscous Drag Model. *Speaker: Dr. Paritosh Sing Babu, VECC*
14:30-14:45	Architecture of LEHIPA Control System. *Speaker: Mr. Sudheer Singh, BARC*
14:45-15:00	Status of Compact Beam Diagnostic System for High Current Injector. *Speaker: Dr. Rajesh Hariwal, IUAC*
15:00-15:15	Development of Real Coded Genetic Algorithm based Optimization System for Performance Enhancement of Booster Synchrotron. *Speaker: Mr. Surendra Yadav, RRCAT*
15:15-15:30	UHV Performance Evaluation of Indigenously Developed Low Conductance Uncoated Long Aluminium alloy Chamber for Undulator in Indus-2. *Speaker: Mr. Shailesh Kumar Tiwari, RRCAT*
15:30-15:45	Engineering Design and Finite Element Simulation of modified Dipole Chamber for Indus-2. *Speaker: Mr. Digamber Yadav, RRCAT*
Parallel Session C3 (Seminar Hall, Laboratory Complex) **Chair: Dr Mainak Bandyopadhyay**	**14:00-16:00**
14:00-14:15	Fast electron Angular Distribution from thin foil targets at Laser intensity 7x10^19 W/cm^2. *Speaker: Mr. Tirtha Mandal, RRCAT*
14:15-14:30	Quasi Mono-energetic Proton Acceleration from the Interaction of High Intensity Short Pulse Lasers with Thin Foil Target. *Speaker: Mr. Mohammad Tayyab, RRCAT*
14:30-14:45	Applications of Indigenously Developed 10 MeV RF Electron Linear Accelerator for Diverse Societal Fields. Speaker: Dr. Nishant Chaudhary, BARC
14:45-15:00	Four Years with XCAMS at IUAC, New Delhi: Status Report. *Speaker: Mr. G. R. Umapathi, IUAC*
15:00-15:15	Study of Direct Target Approach for the Production of 99Mo

	Using High Power Electron Accelerators. *Speaker: Ms. Aqsa Shaikh, SAMEER*
15:15-15:30	Preliminary Studies Towards Development of an Integrated 2 K Refrigeration System at BARC. *Speaker: Dr. Anindya Chakravarty, BARC*
15:30-15:45	Successful Fabrication of Horizontal Test Stand (HTS) Cryostats in Indian Industry for Testing 650 MHz SCRF Cavities. *Speaker: Mr. R Ghosh, RRCAT*
15:45-16:00	Status of Design and Development of High Beta 650 MHz Cryomodule at RRCAT. *Speaker: Ankit Tiwari, RRCAT*
16:00-16:30	**Tea**
Poster Session 1 (Lounge, Laboratory Complex) **Sanjay Choksey, P N Prakash, V S Pandit, A Bandhyophadyay, Pitamber Singh** **16:30-18:00**	
16:30-18:00	Paper ID's: 3, 4, 7, 9, 12, 16, 17, 18, 19, 20, 21, 22, 23, 27, 35, 36, 40, 43, 47, 52, 53, 54, 58, 59, 61, 69, 71, 72, 76, 77, 79, 84, 88, 89, 99, 105, 107, 108, 114, 120, 121, 123, 128, 134, 135, 137, 138, 141, 144, 145, 147, 152, 153, 164, 170. 171, 174, 175, 178, 182, 189, 190, 193, 195, 196, 198, 199, 202, 203, 204, 205, 211, 217, 222, 223, 227, 228, 231, 232, 233, 234, 235, 237, 243, 244, 245, 251, 253, 254, 255, 257, 260, 261, 264, 265, 267, 268, 269, 277, 279, 281, 286, 288, 289, 295, 302, 308, 314, 319, 320, 325, 328, 330, 332, 336, 347 & 353
Thesis Presentations (Seminar Hall, Auditorium) **Dr D Kanjilal, Dr S Krishnagopal**	**17:00-18:00**
17:00-17:30	Studies on Ion Acceleration in Ultrashort Ultra-high Intensity Laser Matter Interaction. *Speaker: Mohammad Tayyab, RRCAT*
17:30-18:00	Laser Driven Plasma Based Electron Acceleration, Applicable Acceleration Mechanisms and its Applications. *Speaker: Dipanjana Hazra, HBNI*
19:00-20:00	Cultural program (Main Hall, Auditorium)
20:00-22:00	Director's Dinner (IUAC Football Ground)
22:00-22:15	End of Day 2, Buses to Hotels

Wednesday 20th November

Plenary Session 4 (Main Hall, Auditorium)
Chair: Dr S Krishnagopal **9:00-11:00**

9:00-9:30	Overview of IUAC Accelerator Facilities *Speaker: Prof. A. C. Pandey, Director, IUAC*
9:30-10:00	Overview of the Accelerator Activities in VECC *Speaker: Dr. Sumit Som, VECC*
10:00-10:30	Overview of High Power Microwave and Accelerator Activities at SAMEER *Speaker: Dr. Sulabha Ranade, SAMEER*
10:30-11:00	Status of Indus 1 & Indus 2Synchrotron Radiation Sources at RRCAT *Speaker: Shri A. C. Thakurta, RRCAT*

11:00-11:30 **Tea**

Plenary Session 5 (Main Hall, Auditorium)
Chair: Dr Archana Sharma **11:30-13:00**

11:30-12:00	Status of the accelerator developments for RIB project at VECC Kolkata *Speaker Dr. Vaishali Naik, VECC*
12:00-12:20	High Power Radio Frequency (HPRF) Activities at BARC for Normal and Superconducting Accelerators *Speaker Dr. Manjiri Pande, BARC*
12:20-12:40	Development of Dual Mode Medical Linear Accelerator at SAMEER *Speaker Shri Sanjay Pethe, SAMEER*
12:40-13:00	Status of High Current Injector Project at IUAC *Speaker: Dr. Ajithkumar B. P., IUAC*

13:00-14:00 **Lunch**

Parallel Session D1 (Main Hall, Auditorium)
Chair: Dr Sanjay Malhotra **14:00-16:00**

14:00-14:15	Design and Development of High Current Electron Gun for Linear Accelerator. *Ms. Shreya Sarkar, BARC*
14:15-14:30	Experiments on a Gridded Ion Source for Applications in Ion Thrusters. *Speaker: Dr. Sanjeev Kumar Sharma (IPR)*
14:30-14:45	Operation & characterization of ECR ion source beam in LEHIPA. *Speaker: Mr. Hitesh Kewlani, BARC*
14:45-15:00	Design, Development and Commissioning of Permanent Magnet Based Variable Field Dipole for BL-11, INDUS-II at RRCAT.

	Speaker: Ms. Elina Mishra, BARC
15:00-15:15	Development of Combined Function Harmonic Sextupole Magnets for Indus-2. *Speaker: Mr. Sreeramulu K., RRCAT*
15:15-15:30	Design, development & Qualification of beam line magnets for Delhi Light Source. *Speaker: Mr. Vikas Teotia, BARC*
15:30-15:45	Design of Low Level RF system hardware being developed for Indian Accelerator program and PIP-II under IIFC project. *Speaker: Mr. Shailesh Khole, BARC*
15:45-16:00	Reference Phase Distribution scheme and Test Results for SSR1 under IIFC. *Speaker: Mr. Afaash Mohammad, BARC*
16:00-16:30	**Tea**
Poster Session 2 (Lounge, Main Laboratory Complex) **Manjiri Pande, M Lad, Mainak Bandyophadyay, Mukesh Goyal, Ajithkumar, Vaishali Naik** **16:30-18:00**	
16:30-18:00	Paper ID's: 5, 8, 26, 2 8, 29, 30, 34, 37, 38, 39, 41, 45, 48, 49, 50, 51, 57, 60, 63, 64, 65, 67, 68, 70, 73, 74, 75, 78, 80, 83, 86, 87, 90, 92, 94, 95, 96, 97, 98, 100, 101, 102, 104, 106, 109, 111, 117, 122, 124, 125, 127, 129, 132, 139, 140, 142, 143, 146, 150, 151, 155, 156, 157, 158, 162, 163, 165, 172, 176, 191, 197, 200, 201, 208, 209, 212, 215, 219, 220, 221, 226, 230, 239, 242, 246, 252, 259, 263, 266, 271, 273, 274, 276, 278, 282, 283, 284, 287, 291, 292, 293, 297, 301, 304, 309, 310, 312, 313, 315, 326, 331, 335, 337, 338, 341, 343, 344 & 352
20:00-22:00	Special Dinner (Football Ground, IUAC)
22:00-22:15	End of Day 3, Buses to Hotel

Thursday 21st November

Plenary Session 6 (Main Hall, Auditorium)
Chair: Dr Sumit Som **9:00-10:30**

9:00-9:30	Neutral Beam Injector: Present and Future. *Speaker: Dr. Mainak Bandyopadhyay , IPR*
9:30-10:00	Utilization of electron accelerators in BARC *Speaker: Shri R. K. Rajawat, BARC*
10:00-10:30	Accelerator Magnets *Speaker: Dr. Sanjay Malhotra, BARC*

10:30-11:00 Tea

Plenary Session 7 (Main Hall, Auditorium)
Chair: Dr R K Bhandari **11:00-12:00**

11:00 11:20	Indigenously developed high temperature superconducting steering magnet for K500 cyclotron *Speaker: Dr. Uttam Bhunia, VECC*
11:20-11:40	Commissioning of the Compact FEL-THz Facility at IUAC *Speaker: Dr. S. Ghosh, IUAC*
11:40-12:00	Cryogenics Activities at BARC for Superconducting Accelerators *Speaker: Dr. Mukesh Goyal, BARC*
12:00-13:00	Concluding Session (Chair: Dr P N Prakash) (Feedback and Prize Distribution) Main Hall, Maharshi Kanad Auditorium

13:00-14:00 **Lunch**

14:15 Buses to Hotels