## **National School cum Workshop in Accelerator Physics**

March 15-18, 2016, Department of Physics Panjab University, Chandigarh

#### Day - 01 15/03/2016

#### Venue: Prof. B.M. Anand Auditorium, Department of Physics

9:15 - 10:00	Registration by participants, collection of workshop kits At physics dept. entrance	Dr. Lokesh Kumar and group
10:00 – 11:00	Inauguration and key note Lecture by Dr. D.K. Avasthi Amity University, Noida Formerly IUAC, New Delhi	TBA

High Tea: 11:00 – 11:30

#### Venue: Seminar Hall, Department of Physics

11:30-12:00	Prof. D. Mehta	Panjab university
	Department of Physics	accelerator project
	Panjab University, Chandigarh	
12:00-12:30	Dr. J.S. Shahi	Basics of XRF technique
	Department of Physics	
	Panjab University, Chandigarh	
12:30-13:00	Dr. Sunil Arora	Role of ion beams in nano-
	Centre for Nano Science and	fabrication
	Nano Technology	
	Panjab University, Chandigarh	

Lunch: 13:00- 14:00

14:00 – 14:30	Dr. Ashok Kumar	Basics of PIXE Techniques
	Department of Physics	
	Panjab University, Chandigarh	
14:30-15:00	Dr. Biraja Mohanty	Operation of PU Variable
	Department of Bio-physics	Energy Cyclotron
	Panjab University, Chandigarh	Accelerator
15:00 – 16:00	Er. A.K. Jain	Basics of Mat Lab
	Department of Physics	
	Panjab University, Chandigarh	

Tea: 16:00 - 16:20

## **Demonstrations at Respective Laboratory**

16:20-18:00	Dr. Ashok Kumar and Group	Demonstration at Cyclotron
		Lab (Group - 01)
16:20-17:30	Dr. J.S. Shahi and Group	Demonstration at XRF Lab
		(Group – 02)
16:20 – 17:30	Prof. S.K. Tripathi and Group	Demonstration at Material
		Science Lab (Group – 03)
16:20 – 17:30	Er. A.K. Jain	Demonstration of MAT
		LAB at Electronics Lab
		(Group – 04)

#### End of Day – 01

### Day - 02 16/03/2016

# **Venue: Seminar Hall, Department of Physics**

9:30 10:00	Dr. Sanjeev Gautam	Synchrotron radiation
	Dr.S. S. Bhatnagar University	research
	Institute of Chemical	
	Engineering and Technology	
	Panjab University, Chandigarh	
10:00 – 11:00	Dr.Rajeev Mehta	Beam Optics
	Inter University Accelerator	Lecture -01
	Centre, New Delhi	

Tea: 11:00 – 11:30

11:30-12:30	Prof. Asimananda Goswami Nuclear Physics Division Saha Institute of Nuclear Physics. Kolkata	FRENA An upcoming facility for nuclear astrophysics: simulating stars in the laboratory
12:30-13:00	Prof. Vipin Bhatnagar Department of Physics Panjab University, Chandigarh	Detectors for High Energy Physics Experiments

Lunch: 13:00- 14:00

14:00 – 15:00	Dr. C.P. Safvan	Radio Frequency
	Inter University Accelerator	Quadrupole Accelerators
	Centre, New Delhi	

Tea: 15:00 – 15:20

## **Demonstrations at Respective Laboratory**

15:20-17:20	Dr. Ashok Kumar and Group	Demonstration at Cyclotron
		Lab (Group -2)
15:20-17:20	Dr. J.S. Shahi and Group	Demonstration at XRF Lab
		(Group –3)
15:20 – 17:20	Prof. S.K. Tripathi and Group	Demonstration at Material
	_	Science Lab (Group – 4)
15:20 – 17:20	Er A.K. Jain	Demonstration of MAT
		LAB at Electronics Lab
		(Group – 01)

End of Day – 02

## Day - 03 17/03/2016

# **Venue: Seminar Hall, Department of Physics**

9:30 – 10:30	Rajeev Mehta	Beam Optics
	Inter University Accelerator	Lecture -02
	Centre, New Delhi	
10:30-11:00	Dr. Ajaya Tyagi	BHU Accelerator Project &
	Department of Physics	physics with neutron beam
	BHU, Varanasi	

Tea: 11:00 – 11:30

11:30-12:30	Prof. P.K. Bajpai Department of Physics Guru Ghasi Das University Bilaspur, MP	Recent Advances in Material Science Research Using Low Energy Ion Accelerators and Facilities at 3.0 MV Pelletron Based National Centre for Accelerator Based Research at Bilaspur.
12:30 – 13:00	Prof. S.K. Tripathi Department of Physics Panjab University, Chandigarh	Basics of thin film deposition techniques

Lunch: 13:00- 14:00

14:00 – 15:00	Dr. P.N. Prakash Inter University Accelerator Centre, New Delhi	Design and testing of TEM class superconducting niobium resonators for heavy ion linacs Lecture - 01
15:00-16:00	Prof. Indranil Majumdar Tata Institute of Fundamental Research, Mumbai	High Intensity Gamma Ray Source (HIGS) and Related Physics

# Tea: 16:00 – 16:15 **Demonstrations at Respective Laboratory**

16:15 -17: 30	Dr. Ashok Kumar and	Demonstration at Cyclotron
	Group	Lab (Group - 3)
16:15-17:30	Dr. J.S. Shahi and Group	Demonstration at XRF Lab
		(Group – 4)
16:15 – 17:30	Prof. S.K. Tripathi and	Demonstration at Material
	Group	Science Lab (Group – 1)
16:15 – 17:30	Er A.K. Jain	Demonstration of MAT LAB
		at Electronics Lab (Group – 2)

### End of Day – 03

## Day - 04 18/03/2016

## **Venue: Seminar Hall, Department of Physics**

9:30 10:30	Dr. P.N. Prakash	Design and testing of TEM
	Inter University Accelerator	class superconducting
	Centre, New Delhi	niobium resonators for
		heavy ion linacs
		Lecture -02
10:30-11:00	Prof. M.L. Garg	Trace elements analysis of
	Department of Bio-physics	biological samples by
	Panjab University, Chandigarh	Nuclear Analytical
		techniques

Tea: 11:00 – 11:30

11:30-12:00	Dr.S. Sihotra	Fast timing measurements
	Department of Physics	with LaBr <sub>2</sub> detector
	Panjab University, Chandigarh	
12:00-13:00	Prof. Sanjeev Aggarwal	KU accelerator
	Department of Physics	
	Kurukshetra University,	
	Kurukshetra	

Lunch: 13:00- 14:00

## **Demonstrations at Respective Laboratory**

14:00 - 14:45	Prof. Sanjeev Aggarwal and Group	Demonstration of Material Science Simulation Group – (Special)
14:45 – 15:30	Prof. Sanjeev Aggarwal and Group	Demonstration of Material Science Simulation Group – (Special)
15:30 – 16:15	Prof. Sanjeev Aggarwal and Group	Demonstration of Material Science Simulation Group - (Special)
14:00 – 16:15	Dr. Jain	Demonstration of MAT LAB at Electronics Lab (Group - 1)
14:00 – 16:15	Dr. Ashok Kumar and Group	Demonstration at Cyclotron Lab (Group - 4)
14:00 – 16:15	Prof. S.K. Tripathi and Group	Demonstration at Material Science Lab (Group – 3)
14:00 – 16:15	Dr. J.S. Shahi and Group	Demonstration at XRF Lab (Group –3)
14 – 16:15 (In three groups only Interested participants)	Prof. Vipin Bhatnagar and group	Visit to RPC Lab (Special group)

Tea 16:15 – 16:30

# 16:30 – 17:00 Feed back and distribution of certificates

**End of the Workshop**