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CENTRAL UNIVERSITY OF KERALA

DEPARTMENT OF PHYSICS

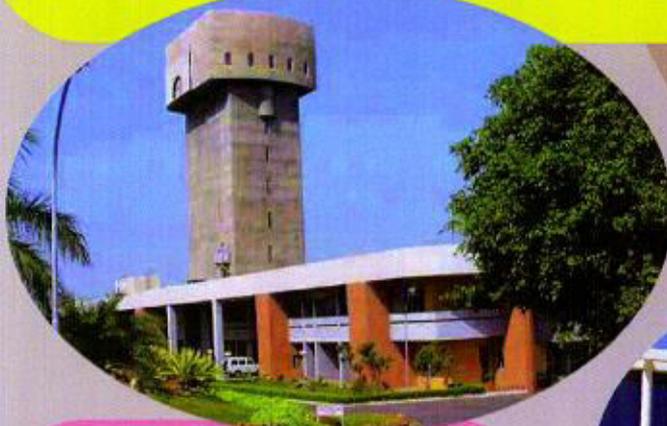
REPORT

**IUAC Acquaintance Programme & One Day National Workshop on
Accelerator Based Science Research**

Department of Physics, CUK has organized one day national Workshop on Accelerator Based Science Research IUAC Acquaintance Programme on 29.10.2018. The invited speakers from different part of the country shared their knowledge and experience. The various opportunities available for the students to pursue their career in the field of research were also emphasized in the programme. It also provided details about the various experimental facilities and opportunities available at IUAC, New Delhi. The programme mainly focussed on the recent trends in the research and employability opportunities, about 149 participants from different parts of the country attended the programme.

IUAC Acquaintance Programme & One Day National Workshop Accelerator Based Science Research

on October 29, 2018



Venue: Central University of Kerala
Tejaswini Hills, Periyar (P.O.), Kasaragod (D
Kerala - 671316



Department of Physics, Central University of Kerala is organizing Inter-University Accelerator Centre (IUAC) acquaintance program and One Day National Workshop on Accelerator Based Science Research on 29th of October 2018 in the Department of Physics (Narmada Building), Central University of Kerala.

IUAC New Delhi, is an inter-university centre, established by the University Grants Commission (UGC) in 1984. The primary objective of the centre is to establish within the university system world class facilities for accelerator-based research. IUAC aims to formulate common programs of research and development in collaboration with universities, IITs and other research institutions. The 15UD Pelletron accelerator and the superconducting linear accelerator facilities along with world class experimental facilities such as Hybrid Recoil mass Analyser (HYRA), Heavy Ion Reaction Analyser (HIRA), Indian National Gamma Array (INGA), National Array of Neutron Detectors (NAND) etc., provide opportunities for cutting edge research in fundamental as well as applied sciences for the university users. The primary fields of research include nuclear physics, atomic physics, materials science, radiation biology and accelerator mass spectrometry. In this one-day programme, we plan to acquaint prospective users from colleges, universities and other institutes, from the surrounding area, with the experimental facilities and opportunities available at IUAC.

List of Speakers

- Prof. K. M. Varier (University of Kerala, Trivandrum)
- Prof. B. R. S. Babu (Sultan Qaboos University, Oman)
- Prof. A. M. Vinodkumar (University of Calicut, Calicut)
- Dr. Ambuj Tripathi (Scientist, IUAC, New Delhi)
- Dr. Subir Nath (Scientist, IUAC, New Delhi)
- Dr. Rhine Kumar (CUSAT, Cochin)
- Dr. Senoy Thomas (CUSAT, Cochin)

Along with the acquaintance program, we are organizing a national workshop on science research using accelerator facilities. The workshop comprises of invited lectures by eminent scientists from various universities. Persons willing to participate are required to apply with their name, corresponding address and field of interest to Dr. E. Prasad, Local Co-ordinator before 15th October 2018. TA will be provided to the participants.

Organizing Committee

- ☒ Dr. E. Prasad (Local co-ordinator)
- ☒ Prof. Kalarikad Jonah Thomas (Head, Department of Physics, CUSAT)
- ☒ Prof. Vincent Mathew
- ☒ Dr. Swapna S Nair
- ☒ Dr. Subasa Chandra Sahoo
- ☒ Dr. P. M. Aneesh

Contact Persons

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Inter University Accelerator Centre
Aruna Asaf Ali Marg
Post Box Number 10502
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Dr. E Prasad
Department of Physics
Central University of Kerala
Thejaswini Hills, Periyar, Kasaragod
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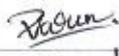
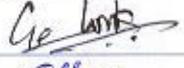
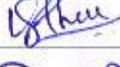
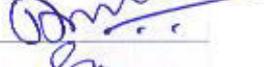
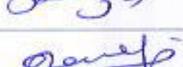
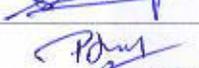
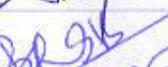
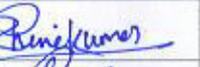
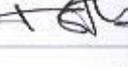
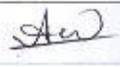


List of Participants.

Sl No	Name	Affiliation	Remarks
1.	Devi Prasad ^{R.N} Asst. Professor	Srinivas Institute of technology, Manglore	
2.	Prof. Narayana Yerol Professor	Manglore university	
3.	Sunil K. C. Research Scholar	Manglore university	
4.	Chethan Research Scholar	Manglore university	
5.	Preethy Research Scholar	Manglore university	
6.	^H Sruthi K. N. Asst. Professor	Srinivas Institute of technology	
7.	Rihana Banu Asst. Professor	Govt. First grade college ^{Devanagere} Devanagere	
8.	Meenakshi ^{Devanagere} Asst. Professor	Govt. First grade college ^{for Women} Devanagere Hassan	
9.	Ganga S Kumar Msc Student	Manglore University	
10.	Seema R Asst. Professor	INDIAN ACADEMY Govt. First grade college DEGREE COLLEGE Devanagere AUTONOMOUS, BANGALORE	 29/10/19
11.	Jai ^{Joseph} Student (Teacher)	K. E. College, Mannam	
12.	^{ANUMARIA JOSE} Joseph Student	K. E. College, Mannam	
13.	Dr. Basnur Manjunatha Professor	Manglore University	
14.	Dr. Murali	NAS	
15.	Pradeep Nayak	Dharwad	
16.	Ashwitha S Asst. Professor	Puthur college	

✓ 17.	Savitha Monteiro A Asst. Professor	Puthur college	<u>Savitha Monteiro</u>
✓ 18.	Sujith S Student	Puthur college	<u>Sujith S</u>
✓ 19.	Thushara R B Student	Puthur college	<u>Thushara R.B</u>
✓ 20.	Poojashree V Rai Student	Puthur college	<u>Poojashree V Rai</u>
✓ 21.	Akshatha G Student	Puthur college	<u>Akshatha G</u>
✓ 22.	Ramyashree Student	Puthur college	<u>Ramyashree</u>
✓ 23.	Namitha D Student	Puthur college	<u>Namitha D</u>
✓ (24)	Divyashree K Student	Puthur college	<u>Divyashree K</u>
✓ 25.	Mithuna P Student	Puthur college	<u>Mithuna P</u>
✓ 26.	Ezitha Student	Puthur college	<u>Ezitha</u>
✓ 27.	Pramitha A Student	Puthur college	<u>Pramitha A</u>
✓ 28.	Anoosha K N Student	Puthur college	<u>Anoosha K.N</u>
✓ 29.	Priyalatha Student	Puthur college	<u>Priyalatha</u>
✓ 30.	Anusha K Student	Puthur college	<u>Anusha K</u>
✓ 31.	Sindhu D G Student	Puthur college	<u>Sindhu D.G</u>
✓ 32.	Rachana K Student	Puthur college	<u>Rachana K</u>

✓ 33.	Lekshmi Priya L Student	Puthur college	<i>Lekshmi</i>
✓ 34.	Havyashree G P Student	Puthur college	<i>Havyashree G.P</i>
✓ 35.	Shilpa M P Student	Puthur college	<i>Shilpa</i>
✓ 36.	Ivy Anjali D'souza Student	Puthur college	<i>Ivy Anjali D.</i>
✓ 37.	Drisyia C B Student	Puthur college	<i>Drisyia</i>
38.	Divya Seetharama		
39.	Chethan G	Manglore university	<i>Chethan</i>
40.	Haritha A	University College Manglore	<i>Haritha</i>
41.	S. Sakthivel Assistant Professor	Govt. Arts college, Karur	<i>S. Sakthivel</i>
42.	Deepthi ^{S. Nair} Bipin	K E College Mannanam	<i>Deepthi</i>
43.	Rekha K MSc Student	Manglore University	<i>Rekha</i>
45.	Shilpa C K MSc Student	Manglore University	<i>Shilpa</i>
46.	Lakshmi Chandran	Manglore University	<i>Lakshmi</i>
47.	Sathish Balan	Mahe College	<i>Sathish Balan</i>
48.	Rajesh, PhD	Calicut University	<i>Rajesh</i>
49.	Dr. A. P. Bhat HoD	Poornaprajna College, Uduppi	
50.	Divya Vasanthkumar Lecturer	Poornaprajna College, Uduppi	
51.	Ghanavi. M. B. Lecturer	Poornaprajna College, Uduppi	
52.	Suchetha M Lecturer	Poornaprajna College, Uduppi	

53.	Chaithra Lecturer	Poornaprajna College, Uduppi	
54.	Dr. Chandra Shekhara Shetty T	St. Aloysius College, Mangaluru	
55.	Dr. Rita Crasta	St. Aloysius College, Mangaluru	
56.	Divya T. P. MSc	Thaliparamba Arts and Science College, Kannur	
57.	Dr. Ishwara Bhat S Associate Professor	St. Aloysius College, Mangaluru	
58	Dr. PRAKASH KAMANT X	St. Aloysius College, Mangaluru	
59	Arun Krishnan	"	
60	Divyashree. S	Mangalore University, Mangaluru Gangotri.	
61	Vasun. N (Guest faculty)	NAS College Padnakkad	
62	Geethulalashree. k (Lecture)	NASC, Padnakkad	
63	Sithara. c	Mangalore University	
64	Dr. A. M. Vinod Kumar	Univ. of Calicut	
65	Dr. S. Nam	IUAC, New Delhi	
66	AMBUJ TRIPATHI	IUAC, N. Delhi	
67.	Senoy Thomas	CUSAT, Kochi	
68	ST. PREETHY AUGUSTINE	MANGALORE UNIVSTY	
69	ABUBAKAR GABD ABUBAKAR	CUK	
70	Prof. B.R.S Babu		
71	Prof. K.M. Varier.		
72	Dr. RHINE KUMAR. A.K	CUSAT	
73	Dr. A.V. Pradeep.	Dept. of Collegiate Education	
74	Sharneef M ✓	Dept. of Physcs	
75	Praveen Prakash D'souza.	Assistant Professor St. Philomena College Puttur	
76	Annu Cyriac	Research Scholar, Dept. of Physics, Kannur University	

77.	Prof. K.M. Varrier	University College, Trivandrum	K.M. Varrier
78.	Dr SATHYAJITH B ✓	MGGAC - MAHE	Sathy
79	M.G.V. SANKARACHARYULU	MGGAC, MAHE SATIPAYYANUR	} Gsk
80.	Dr. NARAYAN BHAT	St. Aloysius college	N.
✓ 81	Raj Kishor. C.H	Mangalore University CU Kerala	R
✓ 82	Ajith S Kumar	CU Kerala	A
✓ 83	Ajith S Kumar	"	A
✓ 84	Shamlatb A.V	"	S
✓ 85	Karthick. M	"	K
✓ 86	Shilpa. K.V	CU Kerala	S
✓ 87	Manikamth. B	CU Kerala	M
✓ 88.	Visakh A.C. ✓	CU Kerala	V
✓ 89.	Laveen. P.V ✓	CU Kerala	L
✓ 90	Shafeeq. K.M	"	S
✓ 91	Lerna Chacko	"	L
✓ 92	Anju Joseph	CU Kerala	A
✓ 93	Jeswin Mammen Raju	"	J
94.	Hasana Jahan-Eb	"	H
95.	Madhushree.P	"	M
96	Sarika K.S	"	S
97	Rashidha. S. R	"	R
98	GANGA R NAIR	"	G
99	ARUNYA RAS R	"	A
100	SWATHA T V	"	S
101	MALAVIKA R K	"	M
102	SRINJANA ROUTH	"	S
103	Diby Kirti Mishra	"	D
104	Nasitha.K.V	"	N
105	Emil Xavier	"	E

106	Ronald Scasta	"	<u>Ronald</u>
107	Akash K.S	"	<u>Akash</u>
108	Vysakh . M. J	"	<u>Vysakh</u>
109	Amsha M. K	"	<u>Amsha</u>
110	Ann Mary Augustime	"	<u>Ann Mary</u>
111	Trushasa C. J	"	<u>Trushasa</u>
112	Akhira . B. Wasote	"	<u>Akhira</u>
113	Anil Kevan	"	<u>Anil</u>
114	Suhil Ahmad	"	<u>Suhil</u>
115	Hashir B	"	<u>Hashir</u>
116	Vismaya - V - S	"	<u>Vismaya</u>
117	Saulakshmi, M. R	"	<u>Saulakshmi</u>
✓ 118	Shalini - M. G	"	<u>Shalini</u>
✓ 119	SUBHA . A	"	<u>Subha</u>
✓ 120	Anumol . C. N	"	<u>Anumol</u>
✓ 121	Anjana . E. Sudheer	"	<u>Anjana</u>
✓ 122	Mushrifa M. K	"	<u>Mushrifa</u>
✓ 123	Nithya . M	"	<u>Nithya</u>
✓ 124	Aleena Mani	"	<u>Aleena</u>
125	Anala Toze	"	<u>Anala</u>
126	Adhithya P. S	"	<u>Adhithya</u>
127	Reena Thomas	"	<u>Reena</u>
128	Jiff Ramechandran VK .	"	<u>Jiff</u>
129	Akhila . T V	"	<u>Akhila</u>
130	Ajyanchandran .	"	<u>Ajyan</u>
131	Anil Parmar	"	<u>Anil</u>
132	Rajat Kumare Tripathy	"	<u>Rajat</u>
140	Vivek . S	"	<u>Vivek</u>

Plus, ^{all} Faculty members, Physics,

Deepa, Kajith and Sujith

[Signature]



Plan of Talk

Introduction

Energetic ion beams

Basic processes

Facilities for Materials Science Research at

Irradiation Facilities

Characterization Facilities

Some results

Surface nanostructuring

Nanocomposites for

Modifications in F

The Workshop was awesome. All the talks are really valuable in the respective fields. We got an outlook of ~~re~~-cutting edge research going on at IUAC on accelerators ^{as well as} and also in condensed matter physics. We expect another workshop at CVR by this group which will be very helpful for the ~~re~~ students. for their future research.

FEEDBACK ON IUAC ACQUAINTANCE PROGRAMME AND ONE DAY NATIONAL WORKSHOP

I feel blessed that I got the opportunity to be a part of the IUAC Acquaintance programme and one day national Workshop on accelerator based science research. It was an extremely informative seminar which influenced us a lot and ignited in me a strong desire to learn more about accelerators and nuclear science. The speakers were very articulate and knowledgeable, and remained interesting throughout the seminar. Also the program was well organised and adequate time for discussion was allowed after each session. It was an informative and intuitive session.

It was my immense pleasure to be able to attend the IUAC acquaintance programme and accelerator based science research. In India, nuclear and accelerator based research is very less compared to other physics areas. Hence it is a great opportunity for all of us to have such a program in our university itself. Speakers from various institutes, different part of the country shared their knowledge, experience and very well covered the basics researches going on here. Various workshops which is held in our department have really emphasised the interest of students to pursue their career in the filed of research. I can proudly say, we have good number of students doing PhD all over the country.