



S.I.W.S.
N.R. SWAMY COLLEGE OF COMMERCE & ECONOMICS
AND
SMT. THIRUMALAI COLLEGE OF SCIENCE
WADALA MUMBAI-400031

Date : 20th May, 2018

DEPARTMENT OF PHYSICS
Report - 2017-18

Academic Activities :

1) Syllabus Workshop:

The department conducted S.Y.B.Sc. Syllabus Revision workshop on 21st June, 2017. The syllabus of S.Y.B.Sc. was revised with many interdisciplinary topics included in it. An interactive platform was much needed for the teachers to discuss and be guided, especially in the new topics of biophysics, geomagnetism etc. The first one day workshop was conducted by the department to give the much needed platform, in association with the Board of studies of University of Mumbai. It was attended by around 82 teacher participants from in and around Maharashtra. \

2) National Workshop on Electron Microscopy of Nanoparticles:

The Departments of Physics and Chemistry, supported by Department of Microbiology, conducted a National Workshop on 'Electron Microscopy of Nanoparticles', in association with National centre for Nanosciences and Nanotechnology, University of Mumbai, on September 23, 2017. A visit to National Centre for Nanosciences and Nanotechnology, University of Mumbai, Kalina Campus was organized in afternoon session. In all, 75 faculty and research students, participated in the workshop. Principal Dr. Usha Iyer the chair person of the conference along with Chairman Emeritus Shri. Santhanam and Dr. V. Rangaraj felicitated the Guest speakers.

Dr. Surendra Pandey, Head of the Department of Physics was the Convener, Dr. Sunita Shirvalkar was the co-convener and Dr. Satish Bhalekar was the Organising secretary for the workshop.

Prof. Pushan Ayyub, Senior Professor and Chairperson of the Department of Condensed Matter Physics and Material Science, Tata Institute of Fundamental Research (TIFR), was the Chief Guest of the Workshop, as well as the speaker of the first session. He talked on the topic 'Looking at Nanostructures by High Resolution Electron Microscopy: Pros and Cons'. Dr. Deepa Khushalani, Associate Professor in Materials Chemistry, Dept. of Chemical Sciences, TIFR, was the speaker of the second session to talk on 'Electron Microscopy: An Invaluable Tool in Study of Functional Materials'. Dr. Andy Sen, National Manager (ICON Analytical, India), Application Specialist and Sales, was the speaker for the third session. He spoke on the topic 'Application of electron microscopes in the development of therapeutic nano-medicines'.

In the second part of the workshop, all the participants visited the state-of-the-art laboratories of National Centre for Nanosciences and Nanotechnology, University of Mumbai, Kalina Campus. The Director of Nanoscience centre, Dr. Santosh Haram, gave away participation certificates to the delegates, at a short and impressive



Valedictory function held at AV Auditorium of centre. The participants and organising committee of the workshop thanked **Principal Dr. Usha Iyer, the chairperson of the workshop** for her invaluable guidance and untiring support at each and every stage of the workshop.

The proceedings of the Conference has been published as a booklet.

Staff Achievements :

a) Dr. Surendra Pandey , H.O.D. Department of Physics

- Paper setter for T.Y.B.Sc. Physics Paper II (Semester V and Semester VI), University of Mumbai
- Moderator and examiner for T.Y.B.Sc. Physics Paper II (semester V and semester VI), University of Mumbai
- Examiner for T.Y.B.Sc. Physics Practical Examination of University of Mumbai

b) Dr. Anuradha Natarajan:

- Dr. Anuradha Natarajan presented a paper in 7th **Tropical Conference of Indian Society of Atomic & Molecular Physics (ISAMP-TC7)** in Tirupati, organized by IISER and IIT Tirupati , from 6-8th January, 2018.
- She also presented a paper in 10th **International Conference in Precision Physics of Simple Atomic Systems (PSAS 2018) in Vienna, Austria** organized by Stefan Meyer Institute for subatomic Physics, Vienna from 14-18th May, 2018. She got financial aid of 500 Euros from **International Union for Physics and Applied Physics (IUPAP)**.
- As the chairperson of the examination committee, Dr. Anuradha Natarajan was involved in the downloading and conducting the University and the College level examination.

c) Ms. Mariamma Danny:

- She also attended the revised S.Y.B.Sc. Physics syllabus workshop conducted by Guru Nanak College on 10th Oct, 2017.
- As a member of the Science Association, Mariamma Danny assisted the chairperson Dr. Hemasundar in conducting a workshop in **Robotics** and a talk by Prof. R.R. Deshmukh, from ICT, Mumbai, on "**Plasma and its application in material Science**".

d) Ms. Anagha Bapat:

- Ms. Anagha Bapat was part of the Result Processing team. The S.Y.B.Sc. and F.Y.B.Sc results were processed by her.
- Appointed as examiner for practical examination in Physics T.Y.B.Sc. Semester VI, University of Mumbai.
- Ms. Anagha Bapat attended a workshop on Examination Queries CBCGS system" held at M.D. college Parel on 23rd Feb 2018.
- She attended the half day workshop on Non-linear Dynamics- Chaos organized by the department of Physics Ramniranjan Jhunjhunwala college on 9th Feb 2018.

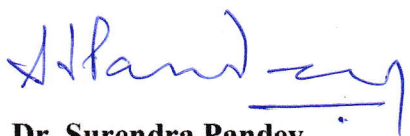


e) **Mr. Sandeep Vansutre:**

As a chairperson of the Gymkhana committee he successfully conducted **University level Chess tournament** in our College.

Students' Achievements :

- a) Our S.Y.B.Sc. student , **Mr.Imran Munshi** (PM group) participated in “**Mathletes**” organized by Guru Nanak College, GTB Nagar, Mumbai and won the **prize** in Treasure hunt-“Finding X”.
- b) **Mr.Imran Munshi** also participated in “**Chemfest React**” organized by Ruia College, Matunga and “**Chem Eminence:**” by M.D.College, Parel respectively.
- c) The results of the department were fair enough with the success rate of 54% on an average.
- d) Our T.Y.B.Sc. Student **Mr.Sunil Singh** got an **A grade** in the University Examination and is pursuing his M.Sc. Degree in Physics.



Dr. Surendra Pandey
H.O.D. Department of Physics

Date : 20th May, 2018



Dr. Usha Iyer
Principal

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National workshop on, 'ELECTRON MICROSCOPY OF NANO PARTICLES' organized in association with National Centre For Nano Sciences and Nano Technology, University of Mumbai on 23 Sep, 2017



Dr. V. Rangaraj, Chairman, S.I.W.S. Managing Committee, addressing the participants



Prof. Pushan Ayyub, Senior Professor and Chairperson of the Department of Condensed Matter Physics and Material Science, TIFR



Dr. Deepa Khushalani, Associate Professor in Materials Chemistry, Dept. of Chemical Sciences, TIFR delivering her speech



Dr. Andy Sen, National Manager (ICON Analytical, India), Application Specialist and Sales



Sharma
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S.Y.B.Sc. Syllabus Revision workshop on 21st June, 2017.



Prof. Anuradha Mishra : Chairperson Board of Studies in Physics




Dr. Pushpinder Bhatia: Member Board of Studies in Physics



Principal Dr. Usha Iyer welcomes Dr. Vijay Joshi Dean of Science Faculty University of Mumbai




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