

6. Nano Materials in Renewable Energy
7. Nano Materials in Pharmaceuticals
8. Nano Materials & Environmental Pollution
9. Physical properties of Nano Materials

CALL FOR PAPERS

Participants may please send Abstracts with title, authors, address and key words typed in MS word, Times New Roman, 12 Font with 1.5 spacing on A4 Paper. The abstracts should be sent to the mail id: atpgdc.chem@gmail.com. Papers should be accompanied by registration fee. The registration fee should be sent by DD in favor of Principal, Govt. College (M), Ananthapuramu.

There will be Poster Presentations as well and interested students can send abstracts separately for poster session.

Prizes and certificates will be awarded to the best three oral and poster presentations.

REGISTRATION FEE

- Research Scholars and Students : Rs. 200
Academicians and Teachers : Rs. 300
Delegates from Industry : Rs. 800

SUBMISSION OF ABSTRACTS

15-01-2015

Accommodation will be provided on advance payment and intimation to outside participants. For details please

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UGC & APSCHE SPONSORED

NATIONAL SEMINAR
ON

NANO MATERIALS AND GLOBAL PERSPECTIVES



30th & 31st JANUARY 2015



Organized By

DEPARTMENT OF CHEMISTRY
GOVERNMENT COLLEGE (M),

ANANTHAPURAMU- 515 001

ANDHRA PRADESH

JOURNEY TO CENTENARY CELEBRATIONS

Government College (M), Ananthapuramu called in past as "Grand Old Lady of Rayalaseema" and "Arts College" popularly, started in 1916, is the most prestigious Government Institutions in the Rayalaseema region of Andhra Pradesh State. The College has completed 100 years of yeomen service to the noble cause of Education. The College has been serving the needs of the backward Ceded District in the composite Madras State and stood as the solitary embodiment in the educational and cultural services of the students and community. The College has rare galleries and monumental labs as feather in its crown. It has grown steadily in academic programs, strength and today it is the biggest College in the Andhra Pradesh with student strength of nearly 8000, with 140 Teaching Staff offering 33 different combinations under the UG courses and 15 PG Courses.

The College has vibrant culture and holistic approach to Education, The simultaneous development of intellectual, physical, cultural and emotional faculties of the student is achieved through various academic, co-curricular and extra-curricular activities. Several inter disciplinary and need based courses are offered by the College to help the students develop their potential for the competitive employment market.

The College has a Galaxy of distinguished Alumni. The College has the distinction of being associated with two former Presidents of India: Dr. Sarvepalli Radhakrishnan, renowned Philosopher was the faculty member and Dr. Neelam Sanjeeva Reddy was the alumnus of the College.

The College has been reaccredited at "A" grade by NAAC in 2011, selected as College Of Excellence by CCE and is preparing for Autonomy and CPE status.

PROFILE OF THE DEPARTMENT OF CHEMISTRY

The Department of Chemistry was established since the inception of the College and has completed 100 years of service to Chemistry. It is offering 10 UG courses besides PG course. M.Sc., Organic

Chemistry PG Course has been started in 2005. The following are the proud products of the Department besides many Civil Servants, Scientists, Social Workers and Politicians.

Prof. M. Santhappa, Former Vice-Chancellor of Madras and SV Universities, Director, CLRI, Chennai.

Dr. U. Brahmaji Rao, Cardiologist, AIMS, New Delhi.

Prof. U.R. Rao, Former Chairman, ISRO, Bangalore.

The Department is offering research enriched teaching to approximately 1600 UG and PG students. At present the Department has 16 Regular and 2 Guest Faculty members working for the welfare of the Students. There are 4 spacious and well furnished laboratories with modern equipment.

THEME OF THE SEMINAR

Materials with structure at the nano scale often have unique optical, electronic, or mechanical properties. **Biological systems** often feature natural, functional nano materials. The structure of foraminifera and viruses (capsid), the wax crystals covering a lotus or nasturtium leaf, spider and spider-mite silk, the "spatulae" on the bottom of gecko feet, some butterfly wing scales, natural colloids (milk, blood), horny materials (skin, claws, beaks, feathers, horns, hair), paper, cotton, nacre, corals, and even our own bone matrix are all natural **organic nano materials**. Natural **inorganic nano materials** occur through crystal growth in the diverse chemical conditions of the earth's crust. For example clays display complex nanostructures due to anisotropy of their underlying crystal structure, and volcanic activity can give rise to opals, which are an instance of a naturally occurring photonic crystals due to their nano scale structure. The field of nano materials is loosely organized, like the traditional field of chemistry, into organic (carbon-based) nano materials such as fullerenes, and inorganic nano materials based on other elements, such as

silicon **Inorganic nano materials**, (e.g. quantum dots, nano wires and nano rods) because of their interesting optical **and electrical properties**, could be used in optoelectronics.

Nanotechnology is a broad interdisciplinary area of research, development and industrial activity that has been growing rapidly worldwide for the past decade. It is a multidisciplinary grouping of physical, chemical, bio-logical, engineering and electronic processes, materials, applications and concepts in which the defining characteristic is one of size. It involves the manufacture, processing and application of materials that are in the size range of up to 100 nm. Nanotechnology is already having its impact on products as diverse as novel foods, medical devices, chemical coatings, personal health testing kits, sensors for security systems, water purification units for manned space craft, displays for hand-held computer games, and high-resolution cinema screens. Nanotechnology is expected to have an impact on nearly every industry- of **nano electronics and computer technology, environment and energy, health care and medicine**. There are many other future applications of nanotechnology and more possibilities will come to light as it is developed further. Hence the organization of the National Seminar will give the Students, Teachers and Researchers a good knowledge of the Nano Materials to enable them to undertake research and entrepreneurship.

AREAS OF FOCUS

1. Organic Nano Materials
2. Inorganic Nano Materials
3. Biological Nano Materials
4. Industrial applications of Nano Materials
5. Nano Materials & Economic Development