



Karnataka Science and Technology Academy (KSTA)

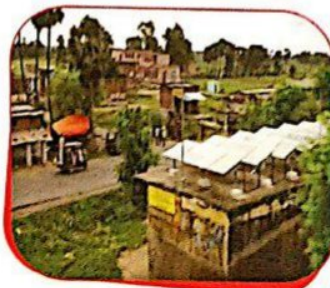
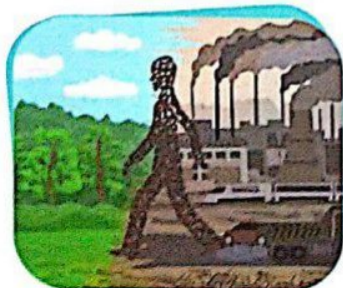
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S.G.V.V.T's

Sri Gavisiddheshwar Arts, Science & Commerce College, Koppal

Jointly organizing
KSTA National Conference on Science and Technology

Theme :

"Role of Science and Technology in Rural Development
23 - 24 February, 2018



Supported Under Special Development Plan

COMPENDIUM OF ABSTRACTS





Organizers KSTA National Conference



Karnataka Science and Technology Academy (KSTA) was established by the Government of Karnataka under the Department of Science and Technology in July 2005, which was Chaired by distinguished Space Scientist Prof. U.R.Rao, Formar Chairman, Indian Space Research Organization / Secretary DOS, Government of India. Now, this position is held by Dr.S.K.Shivakumar, Retired Director, ISRO Satellite Centre (ISAC), Bangalore. KSTA has 21 members comprising of eminent scientists, well known educationists, senior administrators. KSTA has been playing a pivotal role in providing impetus for basic science and engineering education as well as popularization of science among different cross sections of the society. In this context, KSTA has been carrying out a number of dovetailed programmes to encourage students pursuing studies at different levels in an educational pyramid as well as popularization of science among general public. One of the important programmes that KSTA has been organizing over the years are the Academy Conferences, which are being organized at selected district headquarters in association with reputed educational institutions/universities.

KSTA Conference over the years, has been providing a unique platforms for academicians, research scholars, students and scientific community from diverse disciplines to deliberate on science to society and society to science. It also provides the opportunity to present their scientific ideas and research outcomes in the form of posters.

Conidering this, KSTA in association with Sri Gavisiddeshwar Arts, Science & Commerce College, Koppal organizing KSTA National Conference on the theme "Role of Science and Technology in Rural development" on 23-24, February 2018, to create an awareness on innovative research and development by organizing distinguished lectures from eminent scientists and renowned technocrats.

PMS-10:

Photo-driven Synthesis of Gold Nanoparticles using Bombyx mori Silk Fibroin: Their Characterization and Anticancer Activity

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ABSTRACT

This study demonstrates the synthesis of anisotropic colloidal gold nanoparticles (AuNPs) by the reduction of $\text{HAuCl}_4 \cdot x\text{H}_2\text{O}$ using silk fibroin (SF) under UV-radiation atmosphere without any extra reducing or stabilizing agent. The UV-Visible absorption spectra of the samples showed localized surface plasmon resonance (LSPR) band in the wavelength range of 519-536 nm established the formation of AuNPs. The Fourier transfer infrared spectroscopy (FT-IR) study revealed the hydroxyl groups in the Tyr residue and the carboxyl groups in the Asp and/or Glu residues were the most active functional groups for conversion of Au ion to Au neutral atoms. Transmission electron microscopy (TEM) images showed anisotropic morphology of the formed AuNPs. Further, the nanocrystalline phase of gold with the cubic crystal structure was recognized using the X-ray diffraction (XRD) measurements. Furthermore, the biogenic AuNPs are effective in proliferation inhibition in Jurkat and Lymphocyte cells. Therefore, the SF-AuNPs prepared by this clean and facile method is expected to be a potential and economical material for cancer prevention and treatment.

Keywords: Silk fibroin, gold nanoparticles, UV-Visible, XRD, TEM, anticancer activity





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Department Of Science And Technology, Government Of Karnataka And
SRI GAVISIDDESHWAR ARTS, SCIENCE & COMMERCE COLLEGE, KOPPAL

"NATIONAL CONFERENCE"
Certificate

This is to certify that Dr./Shri/Smt. Ranjana Rayakaddi. representing
Mangalore University. Manglore.
has presented a poster in the KSTA Conference on "Role of Science and Technology in Rural Development"
on 23rd and 24th February, 2018 at Sri Gavisiddeshwar Arts, Science & Commerce College, Koppal.

Dr. H. Honne Gowda
CEO & Member Secretary,
KSTA, Bangalore

Prof. Manohar S. Dadmi
Principal, Sri Gavisiddeshwar Arts, Science
& Commerce College, Koppal.



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"NATIONAL CONFERENCE" Certificate Prize Winner

This is to certify that Dr./Shri/Smt. RANJANA RAYARADDI representing
Dept of physics, Mangalagangothri, Mangalore University

is awarded FIRST PRIZE for the Poster Presentation in the KSTA Conference on "Role of Science and Technology in Rural Development" on 23rd and 24th February, 2018 at Sri Gavisiddheshwar Arts, Science & Commerce College, Koppal.

S. K. Shiva Kumar
Padmashri Dr. S K Shiva Kumar
Chairman
KSTA, Bangalore

Prof. Manohar S. Dadmi
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& Commerce College, Koppal.