

IGNITE 2022

A DAILY NEWSLETTER



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INDUSTRY INSTITUTE CONNECT



Virtusa Team visited Agni College of Technology on 12th March 2022 for the Industry Institute Collaboration. They discussed about the possible open doors for placements and internships.

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Energy Sources, Part A: Recovery, Utilization, and Environmental Effects >
 Volume 44, 2022 - Issue 1

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Research Article
One pot synthesis of Ag-Au/ZnO nanocomposites: a multi-junction component for sunlight photocatalysis
 Siva Chidambaram , Balraj Baskaran ,
 Mohankumar Ganesan , Sivakumar Muthusamy ,
 Srinivasan Alavandar , Suresh Muthusamy ,
 Santhiya Pandiyan & Hitesh Panchal ...show less
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ENERGY SOURCES, PART A: RECOVERY, UTILIZATION, AND ENVIRONMENTAL EFFECTS
 2022, VOL. 44, NO. 1, 758-770
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One pot synthesis of Ag-Au/ZnO nanocomposites: a multi-junction component for sunlight photocatalysis
 Siva Chidambaram , Balraj Baskaran , Mohankumar Ganesan ,
 Sivakumar Muthusamy , Srinivasan Alavandar , Suresh Muthusamy ,
 Santhiya Pandiyan , and Hitesh Panchal

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ABSTRACT
 Plasmonic nanoparticles incorporation increases the photo-physical conversion rate in the semiconductors. Here, we demonstrate the one-pot ZnO(Ag-Au) nanocomposite for enhanced the visible light photocatalysis. The obtained ZnO nanoparticles are of 10-20 nm size and the deposited metal nanoparticles are of 1-3 nm. The light absorbance spectrum indicated the characteristic band edge absorbance of ZnO (~350 nm) as well as the SPR peaks of Ag (~420 nm) and Au (~520 nm). Enhanced absorption received for the metal nanoparticles deposited ZnO nanocrystals indicate the technological importance of the materials. Emission spectrum of the materials indicated the metal nanoparticles inhibited electron-hole pair recombination process. The photocatalytic methylene blue degradation efficiency of ZnO(Ag-Au) (87%) nanocomposite is much higher than the ZnO(Ag) (65%) and ZnO(Au) (57%) nanocomposites. Studies indicated the performance improvement is due to the bimetallic nature over their pristine nature of Ag and Au.

ARTICLE HISTORY
 Received 7 January 2022
 Revised 1 March 2022
 Accepted 3 March 2022

KEYWORDS
 Plasmonic; photocatalytic; ZnO; silver; optical

Introduction
 Evolution of nanotechnology from generalized nanoparticle synthesis to application focused nanocomposite formations made importance of this technology. Semiconductor nanostructures are the keys in modern optoelectronics and photo-electrochemistry applications. Due to its great electrochemical stability and electron mobility ($115-155 \text{ cm}^2 \text{ V}^{-1} \text{ s}^{-1}$), ZnO nanostructures are of considerable interest (Ong, Ng, and Mohammad 2018). Even more attentions on ZnO nanostructures are arising due to unique electronic states found in quantum sized ZnO nanostructures and their high dispersion nature at nanoscale (Aspoukeh, Barzinji, and Hamad 2021). ZnO nanostructures have been used in a variety of applications, including solar cells (Son et al. 2014), piezoelectronics (Le, Ahmadipour, and Pung 2020), photoelectronics (Ilanchezhian et al. 2018) and photocatalysis (Siva et al. 2018), as a significant candidate with a direct bandgap of ~3.3 eV and a substantial exciton-binding energy of ~60 MeV at ambient temperature. However, the wide bandgap of ZnO, low photocurrent

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Dr.Srinivasan Alavandar, Principal has published a research article on **One Pot Synthesis of Ag-Au/ZnO nanocomposites: a multi-junction component for sunlight photocatalysis** in one of the finest Journal, Taylor & Francis.

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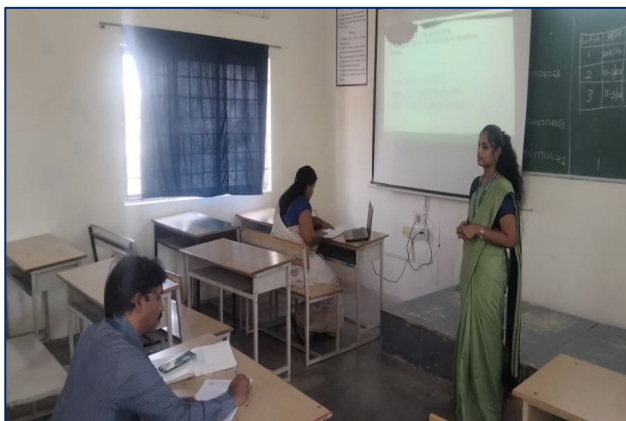


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IQAC PRESENTATION



IQAC presentation has been started for the Even Semester in an intension to make teaching learning more effective. Dr. Kalaimurugan, Head, Department of EEE was evaluating the presentation by the faculty members Dr. Ishwarya M. V. , Mr. Rajchander and Mrs. Mohana Priya, Department of CSE.

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TECH ANNOUNCEMENT


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Letter No: / March 2022 **Placement Note** **Date: 14-Mar-2022**

Flipkart Runway - Season 2



Early career program for women engineers in 2nd year

Company Name	Flipkart Runway - Season 2
Stages and Timelines	Online Quiz The registered participants will take an online quiz where they will be tested on their basic coding skills. The students will be shortlisted based on their test scores. 27 Mar 22, 12:00 PM IST - 27 Mar 22, 06:00 PM IST SOP (Statement of Purpose) & Interview The shortlisted students will be required to submit SOP (Statement of Purpose) & appear for the interviews. To be announced.
Eligibility Criteria:	- Open to all women engineers who are in the 2nd year of their engineering course (either UG (2024 pass-outs) or 3rd year of their dual degree courses (2024 pass-outs) - any specialization (Full-Time Courses only) - Ability to complete a full-time, 8 to 10-week internship between May to July 2022 (exact program dates will be provided at a later point in the process) - Basic level programming experience in C / C++ / Java / JavaScript or Python, etc.
Program Selection Process:	Step 1: Register on Dare2Compete Step 2: Online Test Step 3: Submit SOP Step 4: Interviews Step 5: Get Offer Letter & Start Internship
About Flipkart Runway - Season 2	We're back with Season 2 of Flipkart Runway, our Early Career Program for Women Engineers that aims to provide them with an accelerated pathway to a successful career in technology. Runway aims at laying an early foundation for women in engineering by giving them early exposure to developmental opportunities through challenging & real-time problem statements, mentoring and networking opportunities. The selected students get an opportunity to intern with Flipkart in 2022 and a chance to bag a PPI (Pre Placement Interview) for an internship with Flipkart in their pre-final year.
Rewards	- Selected students get to intern with Flipkart in the summer of 2022 - Academic scholarships - PPI (Pre Placement Interview) opportunity for an internship at Flipkart in pre-final year
Registration Link	https://dare2compete.com/competition/flipkart-runway-season-2-flipkart-260527?refId=FRW22P

Placement Officer
Principal
 Copy to: 1) Principal Office 2) HOD & DP (ALL) 3) CAO 4) Hostel Warden (Boys & Girls)

FLIPKART RUNAWAY – SEASON 2 is back!!

Students of all the Departments have been encouraged to register and participate actively to grab the greatest opportunity in the career.

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