

**DHANANJAY., M.Tech.,KSET (physical science)**

Guest Faculty and Research Scholar (Ph.D.)

Center for Material Science and technology,  
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DOB: 02-01-1995



### ACADEMIC CREDENTIALS

Name of the Institute	Certificate / Degree with Specialization	University	Year of Passing	Remarks & Percentage (%)
University Of Mysore	KSET	University Of Mysore	2019	ELIGIBLE
Centre for Material Science and Technology	M. Tech Material science	University Of Mysore	2019	84%
GECK	B. E Mechanical Engineering	VTU	2017	61%

### KEY STRENGTHS

- Focused and committed towards the assignments and responsibilities.
- Ability to provide quality knowledge
- Ability to handle the students

### INSTRUMENTS AND TECHNIQUES KNOWN

- Scanning Electron microscope (SEM)
- Raman spectrometry
- Chemical Vapor deposition (CVD)
- X-Ray diffraction (XRD)
- Fourier Transform Infrared Spectroscopy (FTIR)

- Energy dispersive X-ray analysis (EDAX)
- Thermo-gravimetric analysis (TGA)
- Brunauer–Emmett–Teller surface analyser (BET)
- Dynamic Light Scattering (DLS) Particle Size Distribution
- Dedicated microwave
- Electrochemical Instrumentation
- Magnetic susceptibility

## RESEARCH INTERESTS

- Carbon 2D Materials – Graphene
- Novel method development for the construction of super capacitor using hydrothermal/solvothermal Sealed vessel microwave techniques.
- Fabrication of new sensing materials
- Development of novel organic/inorganic metal composites for potential application.

## ACADEMIC AND RESEARCH PROJECTS

- M.Tech final year mini project work on “**Green Synthesis, Characterization and Application of Fe<sub>2</sub>O<sub>3</sub> Nanoparticle by using Crotalaria L**”.
- M.Tech final year project work on “**Synthesis and Characterization of Metal trioxides Ag<sub>2</sub>WO<sub>4</sub>/Fe<sub>2</sub>O<sub>3</sub>/Cu<sub>2</sub>O nanocomposites**”.

## RESEARCH PUBLICATION

**Dhananjay Purushotham**, Abhilash Mavinakere Ramesh, Anju Kodandaram, and Srikantaswamy Shivanna – “Microwave hydrothermal preparation of NiO-MoO<sub>3</sub>/GO heterostructure for photocatalytic activity through S-scheme mechanism” **Inorganic Chemistry Communications** (Under Review) (**Impact factor – 3.42**)

Akshatha Gangadhar, Abhilash Mavinakere Ramesh, **Dhananjay Purushotham** and Srikantaswamy Shivanna. (2022) “Fabrication of Carbon Nanotubes Coated Electrodes to Remove Organic Pollutants in Treated Wastewater” **Chemical papers**, (SPRINGER) (Under Review) (**Impact factor – 2.4**)

Abhilash Mavinakere Ramesh, Anju Kodandaram, **Dhananjay Purushotham**, Chandra Mohana Nagabhushana, Srikantaswamy Shivanna - Developing of semi-transparent  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>/Cu<sub>2</sub>O heterostructures with S-scheme photocatalytic activity and biological interests, **Chemosphere**, Volume 307, Part 2, November 2022, 135927 (**Impact factor – 8.9**).

Chandrakantha Kampalapura Swamy, Abdo Hezam, Abhilash Mavinakere Ramesh, Deepu Habbanakuppe Ramakrishnegowda, **Dhananjay K Purushothama**, Jagadish Krishnegowda, Srikantaswamy Shivanna, - Microwave hydrothermal synthesis of copper induced ZnO/gC<sub>3</sub>N<sub>4</sub> heterostructure with efficient photocatalytic degradation through S-scheme mechanism - , **Journal of Photochemistry and Photobiology A: Chemistry**. Volume 418, 1 September 2021, 113394 (Impact factor – 5.14).

#### CONFERENCE RESEARCH PAPERS

1. [Dhananjay](#), M. R. Abhilash, G. Akshatha, K. Byrappa and S.Srikantaswamy (2019), “Green synthesis, characterization and applications of Fe<sub>2</sub>O<sub>3</sub>, nanoparticles by using Crotalaria L”, Paper No. PP-103, AFMEEHC-2019,18 -20, March, University of Mysore, Mysuru, India.
2. [P. Dhananjay](#), M. R. Abhilash, G. Akshatha and S. Srikantaawamy “Green Synthesis, Characterization and Application of Fe<sub>2</sub>O<sub>3</sub> Nanoparticle by using Crotalaria L” PP-066, Page no79, NCSTRD-2019, 17th and 18th October 2019, University of Mysore, MGM, Mysuru, India.
3. [P. Dhananjay](#), M. R. Abhilash, G. Akshatha and S. Srikantaawamy “Band Structure parameters and overview of available approximation computational methods” PP-067, Page no-88, NCSTRD2019, 17<sup>th</sup> and 18<sup>th</sup> October 2019, University of Mysore, MGM, Mysuru, India.
4. G.Akshatha,Vishala.N. Prabhakan N, M.R.Abhilash, [P. Dhananjay](#) and S.Srikantaawamy “Photocatalytic degradation of chromium (VI) using Nano-porous silver tungstate” PP-071, page no-83, NCSTRD-2019, 17th and 18<sup>th</sup> October 2019, University of Mysore, MGM, Mysuru, India.
5. G. Akshatha, M.R.Abhilash, [P. Dhananjay](#), K. Jagadish and S.Srikantaawamy “Functional multiwalled Carbon nanotube (CNT’s) Composite with silver Tungstate nanoparticle and its application on antibacterial activity” PP-072, Page no-83, NCSTRD-2019,17th and 18th October 2019, University of Mysore, MGM, Mysuru, India.
6. Akshatha G, M.R. Abhilash, [P. Dhananjay](#) and S.Srikantaawamy. “Carbon Nanotube: properties and its Application” PP-57, Page No -153, Indian Science Congress-2020, 3rd-7th January 2020 at GKVK, Bangalore India
7. [P. Dhananjay](#) M.R. Abhilash, Akshatha G and S.Srikantaawamy. “Band structure parameters and overview of available approximation computational methods with suitable illustrations” PP-62, Page No -160, Indian Science Congress-2020, 3rd-7th January 2020 at GKVK, Bangalore India.

## CERTIFICATION

- Cleared Karnataka State Eligibility Test (**KSET**) for lectureship in **PHYSICAL SCIENCE - 2019**
- Completed online NPTEL courses on **advanced materials** and **Nanotechnology in agriculture**.
- Participated in one week Faculty development program on “**Characterization of Materials by Advanced Analytical Techniques**” at TEQUIP -2019, SJCE, mysore.
- Participated in Indian Science Congress-2020, (**Material science section**) 3<sup>rd</sup>-7<sup>th</sup> January 2020 at GKVK, Bangalore India.
- One Week Online Short Term Training Programme on “**expanding horizons of nanotechnology in engineering, medicine and biotechnology**” (ehnemb 2020), series – 2, September-2020
- Participated in the webinar on “**Micro & Nanotechnology and its Applications**” organized by Department of Physics, G.T.N. Arts College (Autonomous),Dindigul on 14.05.2020
- Participated in the webinar **8<sup>th</sup> Interdisciplinary Symposium on Materials Chemistry (ISMC-2020)** organized by chemistry Division, Bhabha Atomic Research Centre, and Mumbai & Society for Materials Chemistry, on online mode during June 17-19, 2021.
- **Stadler Seminar Series- Edition 2022**

## PERSONAL DETAILS

Father name	: Purushotham
Date of Birth	: 2nd Jan 1995
Sex	: Male
Nationality	: Indian
Marital Status	: Single
Hobbies	: Painting, photography, Listening to Music.
Languages Known	: Kannada and English
Permanent Address	: #118 1 <sup>st</sup> cross 22 <sup>nd</sup> ward Madhuvanahalli block, Krishnarajanagara taluk, Mysuru dist- 571602