


Faculty Profile

Name of Faculty	Dr. Shanmuga Priya K	
Department	Chemistry	
Qualification	M.Sc., M.Phil., Ph.D.	
Designation	Assistant professor	
Area of specialization	Corrosion Studies, Chemical Kinetics	
Date of Joining BNMIT	04.08.2008	
Nature of Association (Regular/Contractual/Adjunct)	Regular	
Mobile Number	9448074853	
e-mail	kshanmugapriya@bnmit.in k_priya_78@hotmail.com	
No. of years of Experience	Teaching: 11 years Industry: 02 years	

Academic Qualifications

- **Ph.D.** (2018), Chemistry, Bharathiar University, Coimbatore, Tamil Nadu, India.
- **M.Phil.** (2006), Chemistry, Bharathidasan University, Trichy, Tamil Nadu, India.
- **M.Sc.** (2000), Chemistry, Bharathiar University, Coimbatore, Tamil Nadu, India.
- **B.Tech** Computer Systems (2000), Open University of British Columbia, Vancouver, Canada.
- **B.Sc.** (1998), Chemistry, Bharathiar University, Coimbatore, Tamil Nadu, India.

Working Experience Details

- Assistant Professor, Dept. Of Chemistry, BNMIT, Bangalore (2011 to till date).
- Lecturer, Dept. Of Chemistry, BNMIT, Bangalore (2008-2010).
- Lecturer, Dept. of Chemistry, SRN Adarsh Vidhya Sangh, Bangalore (2004-2005).
- Office Manager, Linux Learning Company, Bangalore (2003-2004).
- Tech Support Executive, India Markets, Coimbatore (2002-2003).
- Lecturer, Dept. of Chemistry, Maharaja Engineering College, Coimbatore (2001-2002).

Subject taught

- Engineering Chemistry (Theory & Lab) (Bharathiar University & VTU)
- Chemistry in Degree College (Physical, Organic, Inorganic (Theory & Lab))
- Environmental Studies (VTU)

Research Experience Details:

M. Phil:

“Kinetics and Mechanism of oxidation of glycine by 1- chlorobenzotriazole”

The reaction was investigated at different temperature and activation parameters were calculated and a suitable mechanism was proposed. The reaction was initiated by mixing previously thermostated solutions of the reactants at desired temperature. The reaction was followed by determining the unreacted oxidant iodometrically. The pseudo-first-order rate constants were determined from the linear plots of log (oxidant) against time plots and the values were reproducible.

Ph.D:

“Study on Corrosion Inhibition Effect Of Plant Extracts On Mild Steel In Acid Media”

Eco-friendly, less toxic and economical corrosion inhibition of mild steel and its industrial application was taken as the objective of the study for which two natural plant inhibitors were investigated as corrosion inhibitors on mild steel and were tested in nickel electroplating (pickling) industry. These extracts could be used as corrosion inhibitors to control corrosion in engineering industries.

Technical Expertise:

- CH Instrument (Electrochemical Workstation)
- Cyclic Voltammeter
- XRD
- SEM
- EDAX
- FTIR
- UV Spectrometer

Professional Memberships:

- Life Member, “The Electrochemical Society of India” (ECSI) (IISC).

Workshops /Seminars Organized:

- **Organized** Five Day Faculty Development Program on “Recent Advances in Material Science” held at BNM Institute of Technology, Bengaluru during 9th - 13th January 2017.

Research Publications:

I. In National & International Journals

International Journals:

1. K Shanmuga Priya, Prathibha B.S. ,Vasudha, H.P. Nagaswarupa. "Spathodea Campanulata as a Corrosion Inhibitor for Mild Steel in 1N H₂SO₄ Media," Materials Today: Proceedings Proceedings Vol. 5, Issue 10, 2018, pp. 22595-22604. ISSN : 2214-7853
2. Shanmuga Priya K, Prathibha B S, "Green Synthesis of Silver Nanoparticles Using Tabebuia Aurea Leaf Extract" *IOSR-JAC*, Vol.10 (6), Ver. I, 2017, pp. 23-29,
3. Shanmuga Priya K , V G Vasudha, "Corrosion Inhibition of Mild steel in 1N HCl Media by Acid Extract of Spathodea Campanulata Leaves", *IOSR-JAC*, Vol.8 (8), Ver. II, 2015, pp. 05-11.
4. Shanmuga Priya K, V G Vasudha, "Acid Extract of Polyalthia Longifolia as a Green Corrosion Inhibitor for Mild Steel in H₂SO₄ Solution", *IOSR-JAC*, Vol.8 (2), Ver. II, 2015, pp. 10-16.
5. Shanmuga Priya K , V G Vasudha "Corrosion Inhibition of Mild Steel in H₂SO₄ Media using Polyalthia Longifolia Leaves", *Che Sci Rev Lett* , Vol. 2(6), 2014, pp.435-443.
6. Shanmuga Priya K , V G Vasudha "Polyalthia Longifolia as a Corrosion Inhibitor for Mild Steel in HCl Solution" *Research Journal of Chemical Sciences*, Vol. 3(1), 2013, pp.21-26.

II. Papers presented in International/National Conferences

International Conference:

1. International conference on "Electronics, Physics & Chemistry" organized by Jyoti Nivas college in collaboration with IMRF, Bangalore. Topic: "Spathodea Campanulata leaf as a green corrosion inhibitor for Mild Steel in 1N H₂SO₄ solution"(16.02.2017 to 18.02.2017).
2. International conference on "Fundamental and Applied Chemistry" NACFAC organized by Deerajlal Gandhi college, Salem. Topic: "Corrosion Inhibition of Mild Steel in 1N H₂SO₄ Media using Polyalthia Longifolia Leaves" (4.10.2013).
3. International conference on convergence of science, engineering and management in education and research (ICCSEM) organized by DSCE, Bangalore. Topic: "Acid extract of *Polyalthia Longifolia* as a Green Corrosion Inhibitor for mild steel in H₂SO₄ solution" (26.09.2013 to 27.09.2013).

4. International Conference on “Surface Engineering for Research and Industrial Application” organized by Rajalakshmi Engineering College, Chennai. Topic: “Inhibition of Mild steel corrosion in 1N HCl solution by acid extract of Polyalthia Longifolia leaves”.(7.8.2013-9.8.2013).

National Conference:

1. National Conference organized by annual research congress (Nirmala college for women, Coimbatore). Topic: “AVH as Corrosion Inhibitor for Mild Steel in 1N HCl Acid Solution” (27.09.2014).
2. National Conference organized by annual research congress (Nirmala College for women, Coimbatore). Topic: “Green corrosion Inhibition of Mild Steel by using Polyalthia Longifolia Leaf Extract in 1N HCl Solution” (28.09.2013).
3. “Chemistry solution to Global challenges”, Nirmala College, Coimbatore. (24.2.2012).

Participation in Training courses/Seminars/Workshops

1. Participated in a Workshop on “Metal finishing technologies on electroplating”, organized by the electrochemical society of India, IISC, Bangalore, on 1st & 2nd February 2018.
2. Participated in a 5 day Faculty Development Programme on “Modern materials and their applications” organized by the Department of Physics, BNM Institute of Technology, Bengaluru from 16th to 20th January 2018.
3. Participated in a 5 day Faculty Development Programme on “Recent Advances in Material Science” organized by the Department of Chemistry, BNM Institute of Technology, in association with The Electrochemical Society of India, IISc, Bengaluru from 9th to 13th January 2017.
4. Participated in a Faculty Development Programme on “Innovative Teaching and Effective communication” organized by BNM Institute of Technology, Bengaluru from 18th to 20th July 2012.
5. Participated in a Faculty Development Programme on “Intellectual Property & Strategic Management of Intellectual property Rights” organized by Entrepreneurship Development Cell VTU, Belgaum at BNM Institute of Technology, Bengaluru on 2nd March 2012.
6. Participated in a Workshop on “High Impact Teaching Skills” attested by Dale Carnegie & Associates, Inc. Trainer and Wipro, at BNM Institute of Technology, Bengaluru from 19th to 20th July 2010.
7. Attended a UGC sponsored National Seminar on ”Chemistry- A Solution to Global Challenges” organized by the Department of Chemistry on 24th February 2012.