

Faculty Profile

Brief Profile



Dr. Sham Aan M. P is a dedicated academician and researcher with over 13 years of experience at R.V. College of Engineering (RVCE), Bengaluru. Dr. Sham Aan M. P currently serves as an Assistant Professor (Selection Grade) in the Department of Chemistry and coordinates multiple institutional initiatives, including the Centre of Excellence in Materials Fabrication & Characterization (CoE-MFC), Science Forum & Indian Plastic Institute-Student Chapter.

He began his career at RVCE as a research scholar in 2007 and has been instrumental in securing several government-funded projects from agencies like AICTE, BARC, and the Ministry of Environment and Forests. His research spans polymer composites, nanofibres, electrochemical energy storage systems, and Electrospun nanofibers and he has published extensively in Scopus and SCI-indexed journals

Dr. Sham Aan has played a key role in organizing national and international conferences such as ICSEM 2016 and has delivered numerous invited talks across India on technical and value-based topics. He has also guided several student research projects and actively engages in community outreach and student mentoring.

With a strong foundation in both research and teaching, he brings a multidisciplinary approach to materials science, nanotechnology, and sustainable engineering, making a significant impact on academia and industry collaboration.

Personal Information

- **Name:** Sham Aan M P
- **Designation:** Assistant Professor-Selection Grade
- **Department:** Chemistry
- **Email:** shaman.mp@rvce.edu.in
- **Phone:** 08068188451

Google Scholar: <https://scholar.google.com/citations?user=jFGR7eIAAAJ&hl=en>

ORCID: <https://orcid.org/0000-0001-6109-8273>

Domain of Expertise

Research Focus

- **Primary Area:** Energy Storage Devices. Electrospun Nanofibers, Polymer Nanocomposites
- **Allied Areas:**
 - Elastomeric Nanocomposites
 - Material Characterization

Academic Qualifications

- **Ph.D.:** [Polymer Science], [Mysore University], [2012]
- **M.Sc.:** [Polymer Science], [Mysore University], [2006]
- **BSc:** [Polymer Chemistry], [Calicut University], [2004]
- **Postdoctoral Research:** [NA]

Professional Experience

Experience			
S.No	Institute/College/Industry	Job Title	Duration (From- To)
1.	Agreen kare latex, Cochin, Kerala, India	Inspection supervisor (Quality Controller)	October 2006 to May 2007
2.	Centre for Manufacturing Research and Technology Utilization (CMRTU), Bangalore	Teaching cum Research Assistant	1 June 2007 to 31 Jan 2011

Publications & Patents

Journal Publications

1. ANAND A, Bote Vaishali Raosaheb, MV Hemantha Reddy, **MP Sham Aan**, Ekwipoo Kalkornsurapranee, Praveen Kumar RS, Vijayasankar AV, Binish CJ, Jobish Johns, "Unveiling the Synergistic Effect of ZnO and Carbon Black Nanoparticles on the Dielectric Properties of Vulcanized Natural Rubber"- **NextNanotechnology**, **6 (2024) 100092**, Elsevier

2. C. J. Binish, Maria John Athira, Sony J. Chundattu, **Sham Aan Mankunipoyil**, A. V. Vijayasankar- "Facile synthesis of aluminum oxyhydroxide-PVA films and its adsorptive evaluation for the removal of methylene blue dye from water: kinetics, optimization studies and mechanism"- **Journal of Polymer Research (2023) 30:449**
3. Binish Chirathadathil John, Vijayasankar Aloor Viswambaram, Soorya Somarajan Raj, **Sham Aan Mankunipoyil** "Adsorptive removal of Cr (VI) using mesoporous iron-aluminum oxyhydroxide-polyvinyl alcohol self-supporting film: Kinetics, optimization studies and mechanism" **Materials Today Communications- 34 (2023) 105315 -**<https://doi.org/10.1016/j.mtcomm.2023.105315>
4. Sudeep M, Yashesh Vijay Rajyaguru, Chandresh Kumar Rastogi, **Sham Aan MP**, Sridharan M, Ajit Khosla, Manjunatha C, "Recent development of nickel based chalcogenides for hydrogen generation" **Materials Today: Proceedings-Nov 2022** <https://doi.org/10.1016/j.matpr.2022.10.244>-Q2 Journal
5. Sudeep Mudhulu, Manjunatha C, **Sham Aan MP** and Satheesh G Babu "A Novel Electrospun PU@CuS Hybrid Nanofiber-Composite: Synthesis and Morphology Characterization" **ECS Transactions (2022), Volume 107, Number 1.**
6. Subana PS, Suresh R, Hari Krishna R, Ujwal Shreenag Meda, **Sham Aan MP** and Manjunatha C "Remediation of Lead Ions from Wastewater Using Magnetic Iron Oxide Nanoadsorbents – A Review" **ECS Transactions (2022), Volume 107, Number 1-**
7. Sudeep M, Manjunatha C, **Sham Aan M. P**, Ashoka S, Suresh R, Ujwal S. M. Development of Nano Copper Sulfide (CuS) Structures for Electrochemical Detection of Vitamin C. **J Nanostruct, 2021; 11(3):628-637.** DOI: 110.22052/JNS.2021.03.020, (Indexed in Web of Science and Scopus)-
8. V. Mamtha , H. N. Narasimha Murthy , V. Pujith Raj , Prashantha Tejas , C. S. Puneet , Achyutha Venugopal , **Sham Aan Mankunipoyil** , and C. Manjunatha, "Electrospun PU/MgO/Ag Nanofibers for Antibacterial Activity and Flame Retardency" **Clothing & Textiles Research Journal- April 2021.**
9. A. Anand , L. Nussana , M. P. Sham Aan , K. Ekwipoo , S. G. Sangashetty & J. Jobish "Synthesis and Characterization of ZnO Nanoparticles and Their Natural Rubber Composites" **Journal of Macromolecular Science, Part B Physics- Published Online, Aug 2020,** <https://doi.org/10.1080/00222348.2020.1798097>.
10. C. Manjunatha, Rahul S Patilb, M. Sudeep, N. Srinivasa, R. Chandra Kumar, **M.P. Sham Aan**, S. Ashoka, "Rational design and synthesis of hetero-nanostructured electrospun PU@ PANI@FeS2: A surface tailored hybrid catalyst for H₂ production via electrochemical splitting of water". **Surfaces & Interfaces, 18, 2020, 100445.**
11. M Jena, C Manjunatha, B W Shivraj, G Nagaraju, S. Ashoka, **M. P. Sham Aan**, "Optimization of parameters for maximizing photo-catalytic behaviour of Zn_{1-x}Fe_xO nanoparticles for methyl orange degradation using Taguchi and GRA Approach" **Material Today Chemistry 12, 2019, Pages 187-19-Q1 Journal**

12. B.J.Manujesh, M.R.Prajna, M.P.Sham Aan, C.V.Majida, "Flexural Characterization of Foam Cored E-Glass Reinforced Smart Materials Using Artificial Neural Network", **Materials Today Proceedings, Volume 5, Issue 10, Part 1, 2018, Pages 21305-2131, October 2018-**

13. Mamtha Venkatram, Hebbale Narayana Rao Narasimha Murthy, Anand Gaikwad, **Sham Aan Mankunipoyil**, Sridhar Ramakrishna, Phani Ayalasomayajula "Antibacterial and Flame Retardant Properties of Ag-MgO/Nylon 6 Electrospun Nanofibres for Protective Applications- **Clothing & Textiles Research Journal- Vol 36, Issue 4, 2018.-**

14. Ekwipoo Kalkornsurapranee, Nussana Lehman, Piyarat Judklaing, Ladawan Songtipya, **MP Sham Aan**, Jobish Johns- "Curing of Natural Rubber/Polyvinyl Alcohol Blends Using Glutaraldehyde-**Materials Today: Proceedings, Volume-5, Issue-7 Pages-15115-15119. June 2018.**

15. Shiv Rao, Devi S N, Anish Johns, Ekwipoo Kalkornsurapranee, **Sham Aan MP**, Jobish johns "Mechanical and Thermal Properties of Carbon Black Reinforced Natural Rubber/Polyvinyl Alcohol Fully-Interpenetrating Polymer Networks" **Journal of Vinyl and Additive Technology- Vol 24, Issue S1, Pages E21-E29, May 2018.**

16. Anish Johns, **Sham Aan MP**, Jobish johns, Bhagyashkar M S, Charoen Nakason, Ekwipoo Kalkornsurapranee "Optimization Study of Ammonia and Glutaraldehyde Content on Vulcanization of Natural Rubber Latex" –**Iranian polymer Journal (2015) 24:901–909 Springer Publications- Q2 Journal**

17. **Sham Aan M P**, B J Manujesh, VijayalakshmiRao, "Moisture absorption and mechanical degradation studies of polyurethane foam cored E-glass-reinforced vinyl-ester sandwich composites" **Journal of Reinforced Plastics and Composites, March 2014; vol. 33, 5: pp. 479-492-**

18. **Sham Aan M P**, M. Krishna, S K Rai, K. Natarajan, "Morphological, Mechanical, Thermal and Flame Retardance Properties of PTMEG Toughened Novolac/Glass Fibre Reinforced Composites", **Advances in Polymer Science and Technology: An International Journal 2013; 3(1): 1-6.**

19. **Sham Aan M.P**, VijayalakshmiRao, B. J. Manujesh, K. S. Umashankar, "Drillability Studies of E-Glass: Polyurethane Foam: Vinyl Ester Sandwich Composites".- **Transactions of the Indian Institute of Metals, February 2012, Volume 65, Issue 1, pp 71-75 - DOI 10.1007/s12666-011-0108-3.**

20. **Sham Aan M P**, M. Krishna, and H.N Narasimhamoorthy "Mechanical, Thermal, Morphological and Flame retardance properties of modified novolac GFRP composites" **International Journal of Advanced Engineering Technology- E-ISSN 0976-3945 IJAET/ Volume II/ Issue II/ April-June'2011/250-257.**

21. **Sham Aan M P**, M Krishna, "Effect Of Addition Of Acrylonitrile-Butadiene Styrene On Mechanical, Morphological And Flame Retardance Properties Of Novolac / Carbon Composites" **Journal of Engineering Research and Studies- E-ISSN 0976-7916- JERS/Vol.II/ Issue I/January-March 2011/62-70.**

22. **Sham Aan M P**, Krishna. M, H N Narasimha Murthy, S K Rai. "Thermal, Mechanical, Morphological and Flame Retardance Properties of DABA Modified Novolac / CFRP Composites" **Asian Journal of material science- ISSN 1996-3394/DOI :10.3923/ajmskr.2011.**

23. **Sham Aan M P**, Krishna. M, H N Narasimha Murthy, S K Rai.“Effect of PTMEG on the mechanical and flame retardance behavior of novolac phenolic based CFRP”-**Journal of Fibres and Polymers**. October, Volume 11, Issue-7, 1083-1087, DOI:10.1007/s12221-010-1083-8, 2010. 2010

Conference Papers

1. Synthesis and characterization of Poly-Vinyl Alcohol-Alumina composite film: An efficient adsorbent for the removal of Chromium (VI) from water C.J. Binish, A.V. Vijayasankar, M.P Sham Aan- International Conference on Emerging Trends in Material Science and Technology – 2022. <https://doi.org/10.1016/j.matpr.2022.02.629>
2. “Flexural Characterization of Foam Cored E-Glass Reinforced Smart Materials Using Artificial Neural Network”- International Conference on Smart Engineering Materials at R V College of Engineering, Bangalore, India during 20-22, October, 2016.
3. “PVDF Based Cardio-respiratory Sensor”-First International Conference on Large Area and Flexible Microelectronics (ILAFM 2014) at R V College of Engineering, Bangalore, India on December 18-20, 2014.
4. “Mechanical properties of Natural Rubber/PVA/Carbonblack nanocomposites vulcanized using Novel Technique”National conference – BPGC-2015, conducted by Centre for Biopolymer science & Technology (CBPST), Kochi, Kerala, during October 9&10- 2015.
5. “Morphology and Tensile properties of the blends of polystyrene and Exudated Resin” – UGC sponsored National Seminar on Recent developments in Physics (NSRDP-2015) - Organized by Dept of Physics Sri Krishnadevaraya University, Ananthapuramu, Andhra Pradesh during 26th& 27th March 2015.
6. “Mechanical and Thermal Properties of Natural Rubber/Poly(Vinyl Alcohol) based Fully Interpenetrating Polymer Networks”- National Conference on Multifunctional Engineering Materials (NCMEM-2013) held at R V College of Engineering, Bangalore, India on 29th – 30th Nov-2013.
7. “Damping Behaviour of Polyurethane Foam Cored Sandwich Composite Structures: Effect of various foam density and skin reinforcements”-3rd National conference on Emerging Trends in Materials for Advanced Technology (NETMAT-2012) held at KVG College of engineering, Sullia, Karnataka on 20th & 21st March 2012.
8. “Design, synthesis and characterization of hybrid sandwich composites for structural applications” – **AIM ENGG-2011**, National conference held at Manipal institute of technology, Manipal on 3-5th January 2011. (Selected for Best Paper Award)

Books/Book Chapters

1. [Author(s)], [Book Title], [Publisher], [Year].

Patents [Filed / Published / Granted]

1. A Nano Compound for Uric Acid Detection, [Patent No. 202541057480], [2025].

R & D Grants & Consultancy Projects

Ongoing & Completed Research Projects

- **[Project Title]:** SPICES-AICTE – Funding Agency: [AICTE], Duration: [2021-2022], Role: [PI].
- **[Project Title]:** Development of Natural Fibre Based Oil Adsorbent for Commercial & Industrial Applications – Funding Agency: [AICTE], Duration: [2020-2023], Role: [Co-PI].
- **[Project Title]:** Short Term Training Programme (STTP) on “Creating and sustaining ethical work place culture” – Funding Agency: [AICTE], Duration: [2019-2020], Role: [PI].
- **[Project Title]:** Development of Multifunctional Electrospun Nanofibrous Composites for Protective Clothing – Funding Agency: [AICTE], Duration: [2017-2020], Role: [Co-PI].
- **[Project Title]:** “Spatial distribution of Uranium and associated water quality parameters in Bangalore, Bangalore rural, Ramanagara, Chikkabellapura and Kolar districts in Karnataka” – Funding Agency: [BARC, Govt of India], Duration: [2016-2018], Role: [Co-PI].
- **[Project Title]:** Development of PVDF/Inorganic nanofiller polymer composite thin films for piezoelectric sensors” – Funding Agency: [-TEQUIP-II Subcomponent 1.2 and 1.2.1, COE, RVCE], Duration: [2016-2017], Role: [Co-PI].

Ongoing & Completed Consultancy Projects

- **[Project Title]** – Funding Agency: [Name], Duration: [Year-Year], Role: [PI/Co-PI].
- **[Project Title]** – Funding Agency: [Name], Duration: [Year-Year], Role: [PI/Co-PI].

Professional Memberships

- Electrochemical Society of India.
- Indian Plastic Institute-IPI
- Luminescence Society of India- Karnataka Chapter

Awards & Recognitions

- [PROJECT OF THE YEAR Award], [Karnataka State Council for Science and Technology, Govt of Karnataka], [2017]
- [Achievement], [Details], [Year]

Student Supervision

- **Ph.D. Candidates:** [1]
- **M.Tech/M.Sc. Students:** 2
- **Undergraduate Research Mentees:** 16

Professional Roles

- **Editorial Board:** [Journal Name]
- **Chair/Committee Member:** [General Chair Name, e.g., *IEEE International Conference on Robotics*]
- **Industry Advisor:** [Vijayalakshmi]

Teaching

Core Courses: **[Current semester]**

- [CM221IC] [Chemistry of Engineering Materials]
- [CM211IA] [Chemistry of Smart Materials & Devices]

Advanced/Lab Courses:

- Engineering Chemistry Lab
- Functional Chemistry Lab
- Engineering & Environmental Chemistry Lab

Professional Roles

Responsibilities

- **Academic:** [CIE Coordinator]
- **Administrative:**

[CoE-MFC- Coordinator, Science Forum Coordinator, IPI-Student Chapter Coordinator]

External Connect

- Member of BoS-Chemistry

National Journals	National Conferences	International Conferences	International Journals	Book Chapter published	Patents Granted
	5	3	23	0	0