Curriculum Vitae

MITHUN KUMAR

- Ph.D. Research Scholar
- Ph.D. Thesis Submitted in June 2021 (received Ph.D. thesis review comments on **19th November 2021**; Waiting for viva-voce
- National Institute of Technology (NIT) Karnataka, Surathkal, Mangalore-INDIA-575025

Research Area : **Polymer Membrane Technology**

Research Supervisors : Prof. Arun M. Isloor & Dr. Somasekhara Rao T.

Ph.D. Thesis Title : "Fabrication, characterization and arsenic removal studies from polyphenylsulfone based ultrafiltration hollow fiber membranes"

Registration No. : 158015 ME15F20

Date of Birth : 25-12-1991

Gender : MALE

Nationality : INDIA

Father's Name : YALLAPPA GOUDA

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LIST OF PUBLICATIONS

PATENT (INDIAN) -02 (Filed)

1. **Patent: Mithun Kumar[a],** Arun M. Isloor[b,c*], Somasekhara Rao T.[a*], (2021) Nano-aluminum oxide blended cellulose acetate/ polyphenylsulfone derivatives hollow fiber membranes: Fabrication, characterization and arsenic removal from drinking water **(Indian Patent: Patent filed).**

2. **Patent:** Arun M. Isloor[a,b*], **Mithun Kumar[c],** Somasekhara Rao T.[c*], M. Chandrashekhar Nayak[d] (2021) Hydrophilic polydopamine/polyvinylpyrrolidone embedded polyphenylsulfone hollow fiber membranes for the removal of arsenic (As-V) from drinking water **(Indian Patent: Patent filed).**

INTERNATIONAL JOURNALS -08

1. **Mithun Kumar,** Isloor, A. M., Rao, T. S., Ismail, A. F., Farnood, R., & Nambissan, P. M. G. (2020). Removal of toxic arsenic from aqueous media using polyphenylsulfone/cellulose acetate hollow fiber membranes containing zirconium oxide. *Chemical Engineering Journal*, 393, 124367. **Impact Factor (13.27) (Elsevier**, Available Online). DOI: 10.1016/j.cej.2020.124367

2. **Mithun Kumar,** Isloor, A. M., Todeti, S. R., Nagaraja, H. S., Ismail, A. F., & Susanti, R. (2021). Effect of binary zinc-magnesium oxides on polyphenylsulfone/cellulose acetate derivatives hollow fiber membranes for the decontamination of arsenic from drinking water. *Chemical Engineering Journal*, *405*, 126809. **Impact Factor (13.27)** (**Elsevier**, Available Online). DOI: 10.1016/j.cej.2020.126809

3. **Mithun Kumar,** Isloor, A. M., Todeti, S. R., Ibrahim, G. S., Ismail, A. F., & Asiri, A. M. (2020). Improved separation of dyes and proteins using membranes made of polyphenylsulfone/cellulose acetate or acetate phthalate. *Environmental Chemistry Letters*, 1-7. **Impact Factor (9.027)** (**Springer,** available online). DOI: 10.1007/s10311-020-00965-3.

4. **Mithun Kumar,** Rao, T. S., Isloor, A. M., Ibrahim, G. S., Ismail, N., Ismail, A. F., & Asiri, A. M. (2019). Use of cellulose acetate/polyphenylsulfone derivatives to fabricate

ultrafiltration hollow fiber membranes for the removal of arsenic from drinking water. *International Journal of biological macromolecules, Volume 129, Pages 715-727.*

Impact Factor (6.953) (**Elsevier**, Available Online). DOI: 10.1016/j.ijbiomac.2019.02.017

5. **Mithun Kumar**, Arun M. Isloor, Somasekhara Rao Todeti., Ahmad Fauzi Ismail, Ramin Farnood (2021) Hydrophilic nano-aluminum oxide containing polyphenylsulfone hollow fiber membranes for the extraction of arsenic, *Journal of Water Processing Engineering*, 44, 102357. **Impact Factor (5.485)** (**Elsevier**, Available Online). DOI: 10.1016/j.jwpe.2021.102357

6. **Mithun Kumar**, Arun M. Isloor , M.C.S Nayak, Somasekhara Rao Todeti. Mahesh Padaki, Ahmad Fauzi Ismail, (2022) Hydrophilic polydopamine/polyvinylpyrrolidone blended polyphenylsulfone hollow fiber membranes for the removal of arsenic from drinking water, *ACS Omega* **(ACS Publication, 3.56; Came for Major Revision).**

7. Valeen Rashmi Pereira; Arun Mohan Isloor; **Mithun Kumar**; Ahmad Fauzi Ismail (2022) Polysulfone nanocomposite membranes containing nanostructured TiO_2, SiO_2 and 3-Aminopropyltriethoxysilane (APTES) modified nano-TiO_2 and nano-SiO_2 nanocomposites: Fabrication, characterization and removal of cadmium (Cd^{2+}) ions from aqueous solution, *Environmental Science and Pollution Research* (**Springer, 4.22; Under Review).**

8. Mrutyunjay Swamy D, Arun M. Isloor, **Mithun Kumar,** Sooraj Nayak, Ahmad Fauzi Ismail,, (2022) Polydopamine functionalized Halloysite Nanotubes incorporated Polyethersulfone Hollow Fiber Membranes for removal of arsenic (As-V) from water, *Environmental Science and Pollution Research* (**Springer, 4.22; Under Review).**

INTERNATIONAL /NATIONAL CONFERENCES-05

1. **Mithun Kumar,** Somasekhara Rao T. and Arun M. Isloor. Preparation and characterization of multilayer composites from nanocellulose and epoxy for packaging applications. 9th international Bengaluru India Nano conference -2017, in Ashoka Hotel, Bengaluru.

2. **Mithun Kumar,** Somasekhara Rao T. and Arun M. Isloor. Development of multi-layer bio-composites from nanocellulose using chitosan and gluteraldehyde as a crosslinking

agent for packaging applications. International conference on systems and processes in physics, chemistry, and biology (icsppcb 2018). In Assam university, Silchar, Assam.

3. **Mithun Kumar,** Somasekhara Rao T. and Arun M. Isloor. Preparation and characterization of nanocellulose and epoxy multilayer composites for packaging application. Indian Nano electronics users program center for Nano science and engineering –inup, IISC, Bangalore-2018.

4. **Mithun Kumar,** Somasekhara Rao T. and Arun M. Isloor. Preparation and evaluation of dye /protein rejection properties from polyphenylsulfone /cellulose acetate and polyphenylsulfone /cellulose acetate phthalate hollow fiber membranes. National conference on advances in chemical sciences 2 – 3, November 2018 in Manipal.

5. **Mithun Kumar,** Arun M. Isloor, Somasekhara Rao T. and Ahmed Fauzi Ismail. Removal of toxic arsenic from aqueous media using polyphenylsulfone/cellulose acetate hollow fiber membranes containing zirconium oxide. 11th International Bengaluru India Nano conference -2020.

INTERNATIONAL COLLABORATION WORK

Sl. No.	Name of Event	Venue	Date
1	Research internship (collaboration work)	Department of Chemical Engineering and Applied Chemistry, **University of Toronto, Toronto, Canada**	May 15, 2019 to June 30, 2019
2.	Research Attachment Programme	Advanced membrane technology (AMTEC) laboratory Universiti Teknologi Malaysia (UTM) Johor Bahru.	16-12-2017 to 14-1-2018
3.	Research Attachment Programme	Advanced membrane technology (AMTEC) laboratory Universiti Teknologi Malaysia (UTM) Johor Bahru.	13-05-2018 to 10-06-2018
4.	Research Attachment Programme	Advanced membrane technology (AMTEC) laboratory Universiti Teknologi Malaysia (UTM) Johor Bahru.	1-12-2018 to 30-12-2018

EDUCATIONAL QUALIFICATION

- Ph.D. in Mechanical Engineering (Area of Research: **Polymer Membrane Technology**), from National Institute of Technology (NIT) Karnataka, Surathkal, Mangalore-575025. (Ph.D. THESIS SUBMITTED).
- M.Tech in Machine Design from AIT Chikmagaluru, Karnataka (2014-2015) Visvesvaraya Technological University, Belgaum.- 2 Years
- B. Tech in Mechanical Engineering from RYM Engineering college Bellary, Karnataka (2011-2013) Visvesvaraya Technological University, Belgaum.- 3 Years
- Diploma in Mechanical Engineering from VVS Polytechnic Bellary, Karnataka (2008-2010) Dept. of Technical Education, Bangalore**.** - 3 Years

WORKSHOP ORGANIZED AS A MAIN VOLUNTEAR

- "Machines and Mechanisms: Kinematics, Dynamics, and Computational Tools" during 14-15 March 2017 has been accepted. TEQIP–III Sponsored, Five Day Workshop.
- Five Day Workshop on Frontiers in Design, Manufacturing and Sustainable energy 03-SEP- 2018 to 07-SEP-2018.
- 1-Day National Workshop on "Recent Advances in Sustainability" March 21, 2017.

ABOUT MYSELF

CAREER OBJECTIVE:

To enhance my professional skills by hard work, dedication with creative knowledge in stable workplace and to achieve all round development of my institution/ organization.

STRENGTHS:

Hard-work, dedication, confidence and to maintain any situation to the best of my knowledge.

COMPUTER SKILLS:

Advance training in computer applications.

*C programing knowledge.

*ANSYS WORKBENCH

Languages Known: Kannada, English, Hindi and Telugu

Technical skills: I have handled SEM instrument, Zeta potential, contact angle machine, preparation of hollow fiber membranes for waste water purification in UTM Malaysia.