



## Arun Karthick. R

7/347, Ajay Pandan Ricemill, Checkanurani – 625514, Madurai.  
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### PROFILE:

- Exceptionally dynamic and motivated Ph.D. candidate with proven research expertise in nano materials, pharmaceutical formulations and biological assay. Resilient personality with high technical skills.

### EDUCATION :

Ph.D. Chemical Engineering, 2014-2020  
Birla Institute of Technology and Science (Pilani Campus), Pilani-33031. Rajasthan, India.  
M.Tech. Pharmaceutical Technology, 2012-2014  
SAASTRA University, Thanjavur - 613401. Tamilnadu, India.  
B.Tech. Biotechnology, 2008-2012  
Kalasalingam university, Krishnan Kovil-626126, Tamilnadu, India.

### Ph.D. Thesis :

Characterization and application of surfactant foams

### RESEARCH INTERESTS :

Surface chemistry, Pharmaceuticals, Formulations, API, Drug Delivery, Analytical techniques, Nano materials, Immunological techniques, Bacterial cell culture, Biological assay development, Serum analysis. Process design and development, Process optimization.

### SCHOLARSHIPS/AWARDS:

- Received WARI Fellowship from DST-IUSSTF, for six months at Univ. of Nebraska-Lincoln, USA 2020.
- Received Summer Research Fellowship from Indian Academy Of Science to work at National Centre for Cell Science, Pune in 2012 (May - June).
- Certification course in Advanced Molecular Biology from Sangenomics Bangalore.
- Cleared level B1 Business English Certificate examination conducted by University of Cambridge in March 2011.

### PUBLICATIONS:

- Arun Karthick, R.**; Ramya Devi, D.; Vedha Hari, B. N. Investigation of Sustained Release Mucoadhesive In-Situ Gel System of Secnidazole for the Persistent Treatment of Vaginal Infections. *Journal of Drug Delivery Science and Technology*. 2018, 43, 362-368. (**Impact Factor: 2.606**)
- Arun Karthick, R.**; Ramya Devi, D.; Vedha Hari, B. N. Vaginitis: Recent formulation approaches of anti-infectious drugs. *International Journal of Pharma and Bioscience*. 2014, 5, 212-218. (**Impact Factor: 3.406**)
- Arun Karthick, R.**; Roy, B.; Chattopadhyay, P. A review on the application of chemical surfactant and surfactant foam for remediation of petroleum oil contaminated soil. *Journal of Environmental Management*. 2019, 243, 187-205. (**Impact Factor: 5.647**)
- Arun Karthick, R.**; Roy, B.; Chattopadhyay, P. Comparison of Zero-Valent Iron and Iron Oxide Nanoparticle Stabilized Alkyl Polyglucoside Phosphate Foams for Remediation of Diesel-Contaminated Soils. *Journal of Environmental Management*. 2019, 240, 93-107. (**Impact Factor: 5.647**)
- Arun Karthick, R.**; Chauhan, M.; Krzan, M.; Chattopadhyay, P. Potential of Surfactant Foam Stabilized by Ethylene Glycol and Allyl Alcohol for the Remediation of Diesel Contaminated Soil. *Environmental Technology & Innovation*. 2019, 14, 100363. (**Impact Factor: 3.356**)

### INTERNATIONAL CONFERENCES:

- Arun Karthick. R, Pradipta Chattopadhyay, "Remediation of Diesel Contaminated Soil by Tween-20 Foam stabilized by Silica Nanoparticles", Proceedings of 4th International Conference on Chemical and Food Engineering (ICCFE 2017), Osaka, Japan, March 28-30, 2017.
- Pradipta Chattopadhyay, Arun Karthick. R, "Characterization and Application of Surfactant Foams Produced from Ethanol-Sodium Lauryl Sulfate-Silica Nanoparticle Mixture for Soil Remediation", Abstract in Proceedings of 2nd International Conference on Soft Materials (ICSM-2016), Jaipur, India, December 12-16, 2016.
- Pradipta Chattopadhyay, Arun Karthick. R, Venkata Vijayan, Soumya Chowdhury, "Optimum Dodecanol-detergent foam performance for formulation of eco-friendly surfactants", Proceedings of World Research

Journals Conference (WRC 2015), Dubai, UAE, 7-9th December, 2015.

#### **ENGINEERING RESEARCH EXPERIENCE:**

##### **Immunobiology and molecular research lab, Serum Institute of India Ltd, Pune, India**

Research Project Trainee (July-Dec 2011)

Characterization & use of bacterial strains in serum bactericidal assay

##### **Birla Institute of Technology and Science, Pilani, India.**

Junior Research Fellow (2014-2017).

Evaluation and enhancement of foam stability of ethanol based aqueous foam using commercial surfactant sodium lauryl sulfate.

##### **SASTRA University, Thanjavur, India**

M.Tech Project Student (2012-2014)

Design and development of vaginal drug delivery systems of Secnidazole.

#### **TEACHING EXPERIENCE**

##### **Birla Institute of Technology and Science, Chemical engineering department**

**Tutorial Instructor** - Engineering Chemistry

**Teaching Assistant** - PDP-I and PDP-II

#### **PERSONAL DETAILS**

**Name** : R. Arun Karthick

**Gender** : Male

**Date of Birth** : 14-08-1990

**Nationality** : Indian

**Marital Status** : Married

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#### **REFERENCES**

##### **Dr. Pradipta Chattopadhyay**

Assistant Professor,

Department of Chemical Engineering,

Birla Institute of Technology and Science (BITS), Pilani Campus,

Pilani 333031, Rajasthan, India

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