

# NEESHMA RADHAKRISHNAN

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## Profile

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An enthusiastic and dynamic academic professional, committed to continued professional development and interested in pursuing advancement within an educational institution. Proficient in administration and curriculum development with excellent student/community relations. An organized individual with strong project management and analytical skills with a real passion for motivating and mentoring students and enhancing classroom experiences.

## Education

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### July 2016 – Till Present

**Ph.D. in Nanotechnology** (Thesis submitted)

School of Materials Science and Engineering, National Institute of Technology, Calicut, Kerala.

### July 2011 – June 2013

**M.Tech. in Nanotechnology CGPA: 8.52 (first class with distinction)**

School of Nanoscience & Technology, National Institute of Technology, Calicut, Kerala.

### Oct 2004 – May 2008

**B.Tech. in Mechanical Production CGPA: 7.72 (first class with distinction)**

Sree Chitra Thirunal College of Engineering, Thiruvananthapuram, University of Kerala.

## Professional Experience

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### Assistant Professor (Jul 2013 - Jun 2014)

Department of Mechanical and Manufacturing Engineering, Manipal Institute of Technology, Manipal University

### Lecturer (Dec 2009 – Jul 2011)

Department of Mechanical Engineering, Mar Baselios College of Engineering & Technology, Trivandrum

Additional Responsibility: Placement Coordinator (Training)

### Design Engineer (Oct 2008 – Dec 2009)

Engineering & Industrial Services (Aerospace Unit), Tata Consultancy Services Ltd, Bangalore

## Areas of Interest

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#Phase change materials #Numerical simulations #Micro heat pipes #Nanofluids #Nanostructures & Nanomaterials

## Skills

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#CATIA design software #Ansys-Fluent #Reviewing & Editing #Analytical reasoning #Critical thinking

## Research Activities

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### ***Publications:***

Neeshma Radhakrishnan, C. B. Sobhan, *Thermophysical characterization and melting heat transfer analysis of an organic phase change material dispersed with GNP- Ag hybrid nanoparticles*, Heat and Mass Transfer, Springer Nature, (2022)

Neeshma Radhakrishnan, Shijo Thomas, C. B. Sobhan, *Characterization of thermophysical properties of nano-enhanced organic phase change materials using T-history method*, Journal of Thermal Analysis and Calorimetry, Springer Nature, 140, 2471–2484 (2020)

### ***Conference Presentations:***

Neeshma Radhakrishnan, C. B. Sobhan, *Investigations on the thermophysical properties of an organic phase change material dispersed with GNP-Ag hybrid nanoparticles*, 16<sup>th</sup> UK Heat Transfer Conference, (UKHTC 2019), 8-10 Sept. 2019, Nottingham, UK.

Article published in *Advances in Heat Transfer and Thermal Engineering (Springer)*, Proceedings of 16th UK Heat Transfer Conference.

### ***Projects:***

#### **Ph.D. Work: *Investigations on nano-enhanced phase change materials for heat transfer applications***

*Overview:* The work aims to improve the thermal performance of low-temperature phase change materials (PCMs) with hybrid nanoparticles. The work involves synthesizing and characterizing hybrid nanoparticles and experimental investigations to determine the thermophysical properties of nano-enhanced organic and inorganic PCMs. The melting behavior of PCM and NEPCM are analyzed experimentally and numerically for energy storage and thermal management applications.

#### **M.Tech. Project: *Development of micro heat pipe for a biomedical application***

*Objective:* To design and fabricate a polymer-based biocompatible wire-sandwiched micro heat pipe array for hyperthermic applications and charging and testing of the same.

#### **B.Tech. Project: *Hovomarine***

*Objective:* To design and fabricate a functional hybrid vehicle prototype that can move on the land surface, water surface, and in underwater conditions.

## Training/Events/Seminars

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- Completed Online Elementary Faculty Development Program on 'Functional materials for Energy Environment and Healthcare' sponsored by AICTE Training and Learning (ATAL) Academy from June 21-25, 2021.
- Delivered a talk on 'Introduction to Nanotechnology' organized by the Department of Mechanical Engineering, St. Thomas Institute for Engineering and Technology, Trivandrum, on June 3, 2020.

- Event coordinator (Finance- Head) of National Conference on Nanomaterials for Energy Environment and Healthcare Conference' (NEEHCON'19), organized by School of Materials Science and Engineering, NIT Calicut on December 27-28, 2019.
- Event coordinator (Technical Team) of 'In-House Symposium' organized by School of Nano Science and Technology, NIT Calicut, on November 27, 2017.
- Participated in the Faculty Development Program in Entrepreneurship, sponsored by DST, Government of India, hosted by Manipal University Technology Business Incubator in association with the Department of Humanities and Management held at MIT, Manipal from March 17-28, 2014.
- Participated in the 'Intellectual Property Awareness & Patent Filing Support Camp' on 22<sup>nd</sup> march, 2014, organized by Manipal Centre for Professional and Personal Development and Innovation Centre, MIT, Manipal.
- Participated in the Campus Connect Soft Skills workshop at Infosys Technologies Limited, Bangalore, from 16-18<sup>th</sup> June 2010, as part of conducting campus placement preparatory training sessions for students of Mar Baselios College of Engineering & Technology, Trivandrum.
- Participated in the National Seminar on 'Role of Intellectual Property Rights in the Knowledge Era' held on September 25, 2010, at Mar Baselios College of Engineering & Technology, Trivandrum.
- Completed the training for CATIA V5, Lean Six Sigma, Design for manufacturing and Assembly (DFMA), Failure Modes and Effects Analysis (FMEA) from Tata Consultancy Services Limited, Bangalore, in 2009.
- Completed a course on 'Basics of Aerospace & Aircraft Tool Design' (course duration: 1 month) from Tata Consultancy Services Limited, Bangalore, in 2009.
- Served as Career Guidance and Placement Unit (CGPU) representative for the 2008 batch in Sree Chithra Thirunal College of Engineering, Trivandrum.
- Event coordinator in organizing Tech 'n Talk, an intercollegiate Paper Presentation Competition held in 2006 at Sree Chithra Thirunal College of Engineering, Trivandrum.

## Personal details

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<b>Date of Birth:</b>	27.05.1987
<b>Spouse's Name:</b>	Dr. Vinuprasad V G
<b>Language skills:</b>	Malayalam, English, Hindi, Tamil

## References

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1. **Dr. C B Sobhan**  
Professor, School of Materials Science & Engineering,  
National Institute of Technology, Calicut  
Ph: 91-495-2286502; csobhan@nitc.ac.in
2. **Dr. Shijo Thomas**  
Associate Professor, School of Materials Science & Engineering,  
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05/09/2022  
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Neeshma Radhakrishnan

