



JYOTHISH KUMAR J S

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Secured graduation in Nanotechnology with first class and distinction from National Institute of Technology, Calicut. Graduation work was based on **Synthesis of Liposome Nanoparticles Carrying Two Different Drugs for the Breast Cancer Therapy**. Seeking opportunities to explore the use of nanoparticles in applications such as active drug delivery, cell imaging, cell regrowth and hyperthermia.

PERSONAL INFO

Date of Birth and Age: 02 July 1995, 27 years

Sex: Male

Marital Status: Unmarried

Nationality: Indian

Languages Known: English, Malayalam and Hindi

SOFTWARE SKILLS

Microsoft Office

Origin

Graphpad prism

AutoCAD

Adobe Illustrator

HOBBIES

Cycling

Drawing

Reading

Story writing

ACHIEVEMENTS

- Won second prize in poster presentation conducted during conference on Nanoscience and Nanotechnology of (Bio) Polymeric systems (2022).
- Gold medal for having highest CGPA Mtech in Nanoscience and Technology (2020).
- Secured first class in Btech under Mechanical Engineering.
- Qualified Graduate Aptitude Test in Engineering (GATE) 2018.
- Book Chapter on "Biomedical Applications of Magnetic Nanomaterials/Ferrites" Mridula Sreedharan, Jyothish Kumar J. S., Anjali G., Nebu G. Thomas, Shilpa Joy, Nandakumar Kalarikkal, and Sabu Thomas

EDUCATION

2018-2020 Mtech in Nanoscience and Technology, National Institute of Technology, Calicut.

CGPA: 9.45 out of 10, with no history of backlogs

Seminar : Mechanical response of freeze dried collagen scaffold.

Project : Synthesis of liposome nanoparticles carrying two different drugs for the breast cancer therapy - Liposome nanoparticles were used to carry hydrophobic drugs including Pioglitazone (PGZ) an excellent ligand for Peroxisome proliferator-activated receptor γ (PPAR γ) and Trametinib (TRM) an anti-tumor drug which is a mitogen activated protein kinase (MAPK) path way inhibitor. By using these two drugs together the trans-differentiation of the mesenchymal breast cancer cells to adipocytes is possible. The bilayer structure of the liposome helps in entrapping drugs together due to its hydrophobic nature.

2013-2017 Btech in Mechanical Engineering, Sree Narayana Institute of Technology, Adoor.

CGPA: 7.28 out of 10, with no history of backlogs.

Project : Performance improvement of SI engine by hydroxyl (HHO) gas addition.

2011-2013 Higher Secondary Examination, State board of Kerala, St.Vincent English Medium Higher Secondary School.

Percentage: 81%.

2010-2011 Secondary school leaving certificate, State board of Kerala, GOVT.VHSS, Kulakkada.

Percentage: 80%

EXPERIENCE

2021-2022 Internship, IIUCNN, Mahatma Gandhi University, Kottayam under the guidance of Professor (**Dr.**) **Nandakumar Kalarikkal**.

- Conducted experiments on Europium doped mesoporous bioactive glass nanoparticles (MBGN) to tailor a suitable hybrid nanosystem for theranostic application.
- Successfully incorporated photothermal transduction agent and chemotherapy drug in the porous structure of MBGN. Carried out study on protein absorption on the surface of MBGN.

REFERENCE

- Prof. (Dr.) Nandakumar Kalarikkal
Senior Professor
School of Pure and Applied Physics (SPAP)
Mahatma Gandhi University (MGU), Kottayam 686 560
Kerala, India.
E-mail: nkkalarikkal@mgu.ac.in
Telephone: +91-4821-2731043
Mobile: +91-9447671962
- Prof. (Dr.) Sabu Thomas
Vice-Chancellor
Mahatma Gandhi University (MGU), Kottayam 686 560
Kerala, India.
E-mail: sabuthomas@mgu.ac.in
Telephone: +91-481-2590357
Mobile: +91-9447223452

2019-2020 Internship, Department of Biomedical Engineering, IIT Hyderabad under the guidance of assistant Professor **(Dr.) Aravind Kumar Rengan**.

- Liposome nanoparticles with homogeneous size distribution carrying both antidiabetic and anticancer drugs were prepared successfully.
- The effects of different post formation process on nanoparticle properties such as encapsulation efficiency and size have been checked.

2018 Apprenticeship, ISRO Thiruvananthapuram, Kerala.

- Worked as an apprentice at Vikram Sarabhai Space Centre (VSSC) extension Centre at Vattiyookavu for the development of composites.

CONFERENCE ATTENDED

- Three days conference on Nanoscience and Nanotechnology of (Bio) Polymeric systems (2022) organized by Mahatma Gandhi University, Kerala, India and University of Guelph, Canada held at Mahatma Gandhi University from march 28 to 30, 2022.
- International Webinar series on Frontiers in Nanoscience and Nanotechnology or Material Science for a Better world IIUCNN, Nanoscience School by and organized of Nanotechnology & School of Pure and Applied Physics.
- Three days sponsored) conference on Processing, Packaging and Coating for Safe Food from November 22 to November 2, 2021 organized by IIUCNN and School of Nanoscience and Nanotechnology, Mahatma Gandhi University.
- DAE SSPSS conducted from December 18-22 at BIT Mesra, Jharkand.