

Aravind Kumar Rengan

Associate Professor, P-NAS Lab, Department of Biomedical Engineering

Room No. 205; Office Phone No.: 6106; Email: aravind@bme.iith.ac.in; www.pnaslab.com



Major Areas of Research/Up to 3 major sponsored projects

Bio-Nanotechnology & Nano-Theranostics.

Targeted Anti-Cancer/Anti-Microbial Nanomedicine.

Ionizing & Non-ionizing Radiation – Oncology.

Major Research Facilities in the Group

In-vivo Micro – CT.

In-vivo Optical Imaging System.

In-vivo Micro Irradiator.

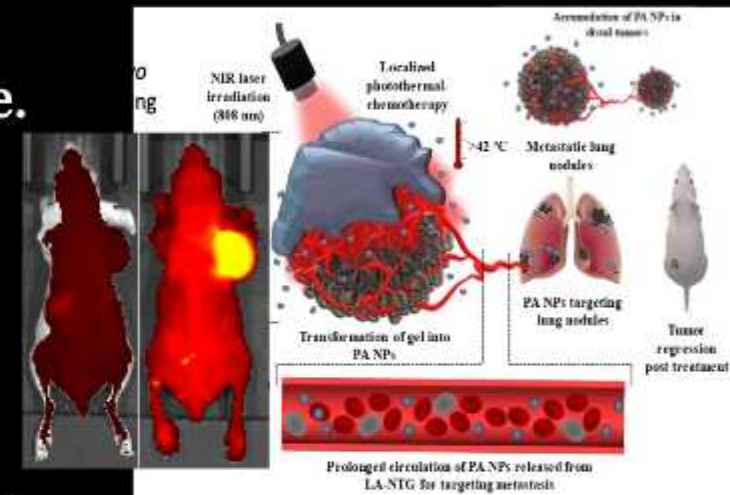
Technology/Product Developed/Up to 3 most significant Publications

Tejaswini Appidi... A K Rengan* et al *Nanoscale*, 2022, 14, 9112.

Syed Alvi ... A K Rengan* et al *ACS Applied Materials and Interface*, 2021, 13, 47, 55862.

Rajalakshmi P A K Rengan* et al *ACS*

Biomacromolecules, 2021, 22, 3926.



Falguni Pati



Associate Professor, BioFabTE Lab, Department of Biomedical Engineering

BTBM-204; 040-2301-6107; 8790935064; falguni@bme.iith.ac.in; <https://biofablab-com.webnode.page/>

Major Areas of Research/Up to 3 major sponsored projects

- 3D Bioprinting of Tissues and Organs for TERM
- 3D Bioprinted Cancer Models for Personalized Treatments
- 3D Bioprinted Micro-physiological Systems for Drug And Toxicity Testing

Major Research Facilities in the Group

- Extrusion-based 3D Bioprinters (Image attached)
- SLA 3D Printers
- FDM 3D Printers
- Rheometer
- Cell culture facility



Technology/Product Developed/Up to 3 most significant Publications

- 3D Bioprinted Corneal Stroma for Partial Keratoplasty
- Biomimetic Hydrogel for Treatment of Blinding Corneal Diseases
- Tissue Specific Bioink for Bioprinting of Human Tissues and Organs
- 3D Printing of Novel Composite's Scaffolds for Cranio-Maxillofacial Reconstruction

- Macromolecular Bioscience 2022:22(8);2200109
- Biofabrication 2022:14(3);032002 ACS Applied Bio
- Materials 2020:4(1):533-544

Harikrishnan Narayanan Unni

Associate Professor, Department of Biomedical Engineering



Room No: BTBM – 303, Office Phone No: 040-2301 6102, Institute Email: Harikrishnan@bme.iith.ac.in

Major Areas of Research

- Lab on Chip microfluidics for bioengineering
- Molecular modelling
- Computational Biomechanics

Major Research Facilities in the Group

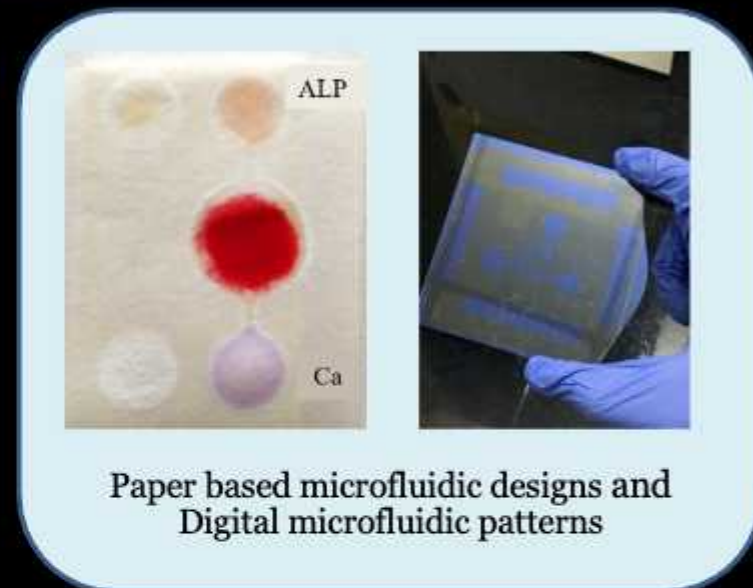
- Microfabrication facility
- Inverted microscope
- High-end workstation

3 most significant Publications

Maneesha Shaji, Mudigunda Sushma, Tejaswini Appidi, Shubha Jain, Aravind Kumar Rangana, Harikrishnan Narayanan Unni, Microfluidic design of tumor vasculature and nanoparticle uptake by cancer cells, **Microfluidics and Nanofluidics**, 25 (46), 2021.

Shubha Jain, Sarpras Swain, Lopamudra Das, Sarita Swain, Lopamudra Giri, Anand Kumar Kondapi, Harikrishnan Narayanan Unni, Microfluidic protein imaging platform: Study of tau protein aggregation and Alzheimer's drug response, **MDPI Bioengineering**, 7(4), 162, 2020.

Manjoosha R. Yerrapragada and Harikrishnan Narayanan Unni, Paper based Microfluidic Device for diagnosis of Osteoporosis markers, **Bioanalysis**, 10 (20), 2018.



Paper based microfluidic designs and Digital microfluidic patterns



Jyotsnendu Giri,

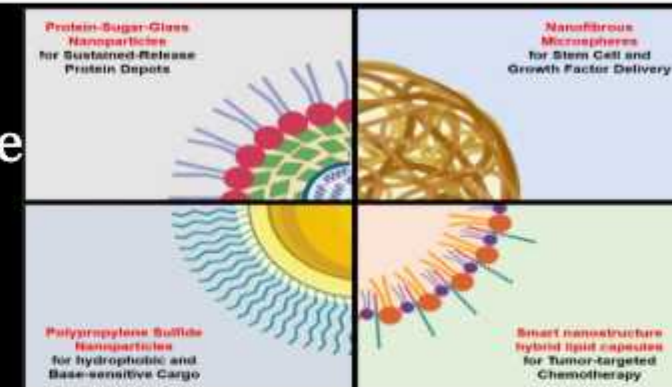
Associate Professor, Biomaterials and Nanomedicine Lab,
Department of Biomedical Engineering, IIT Hyderabad

jgiri@bme.iith.ac.in ; enarmlab.com



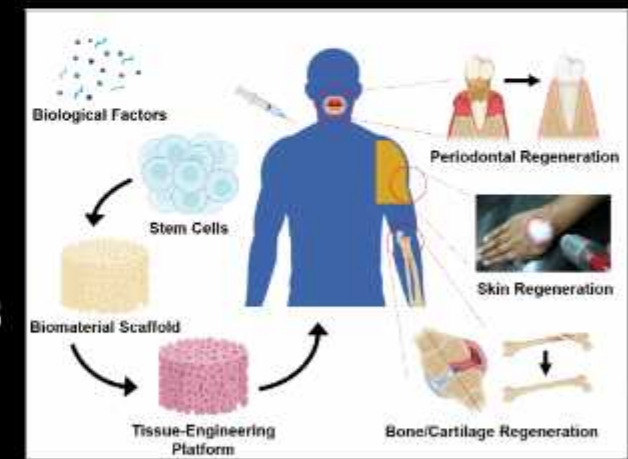
Major Areas of Research

- Novel Biomaterials for Nanomedicine and Regenerative Medicine
- Stem Cell and Regenerative Medicine
- Nanomedicine, Nanotechnology for Therapeutic and Diagnostic
- Drug and Biomolecules Delivery



Major Research Facilities in the Group

- Cryo-Scanning Electron Microscopy
- Biomaterial Fabrication and Characterization Facilities
- Cell Culture and Characterization Facilities



Technology/Product Developed

- Affordable Burn Wound Patch At Patient Bedside For Burn Care
- DuroKea Technology: Affordable Long lasting Hygiene Product
- Nanocarrier for Drug and Gene Delivery



భారతీయ సాంకేతిక విజ్ఞాన సంస్థ హైదరాబాద్
भारतीय प्रौद्योगिकी संस्थान हैदराबाद
Indian Institute of Technology Hyderabad



Dr. Kousik Sarathy Sridharan

Assoc. Prof., Biomedical Engineering Department

ks@bme.iith.ac.in; [Webpage](#)

Major Areas of Research

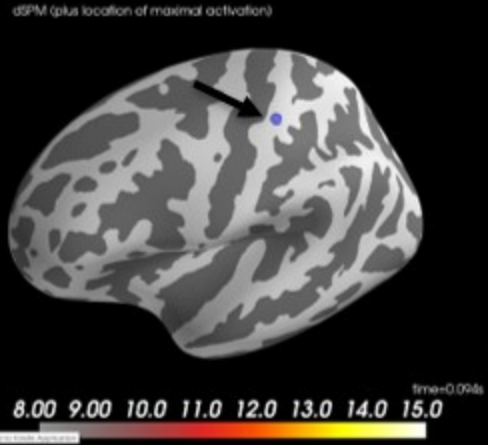
Neuroimaging, Neuromodulation, Affective Haptics, translational neuroscience, Medical device development

Major Research Facilities in the Group

HD-EEG, Saline EEG, Wireless EEG, tES, 3D tracker

Technology/Product Developed

Remote monitoring of ICU (TRL 5/6)
Stack for remote pedagogy (TRL 4/5)
Secure wireless bioamplifier for remote triaging (TRL 3/4)



Mohan Raghavan

Head & Associate Professor HST, Associate Professor Biomedical Engineering

90081 96000: mohanr@bme.iith.ac.in, www.iith.ac.in/~mohanr



Major Areas of Research

Computational Neuroscience

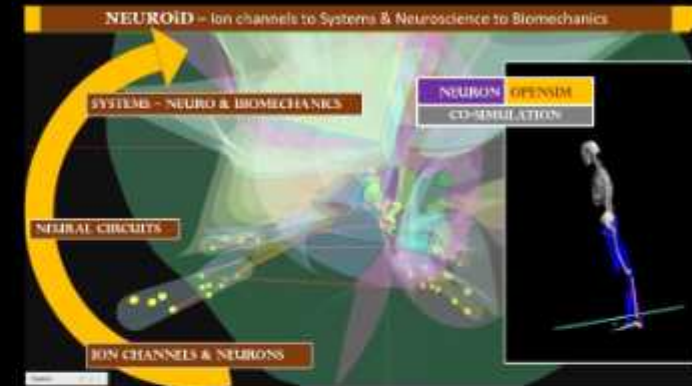
Simulation and modeling of human movement

Experiments in Human movement measurement

ML models of movement understanding

Heritage databases

Neuroscience of Yoga



Major Research Facilities in the Group

Human Gait and movement laboratory

Compute clusters



Technology/Product Developed

NEUROiD – A spinal cord – musculoskeletal movement simulator



భారతీయ సాంకేతిక విజ్ఞాన సంస్థ హైదరాబాద్
भारतीय प्रौद्योगिकी संस्थान हैदराबाद
Indian Institute of Technology Hyderabad

Mohd Suhail Rizvi

Assistant Professor, Comp Bio Lab, Department of Biomedical Engineering

BM305.; No office phone yet; suhailr@bme.iith.ac.in; <https://people.iith.ac.in/suhailr>



Major Areas of Research/Up to 3 major sponsored projects

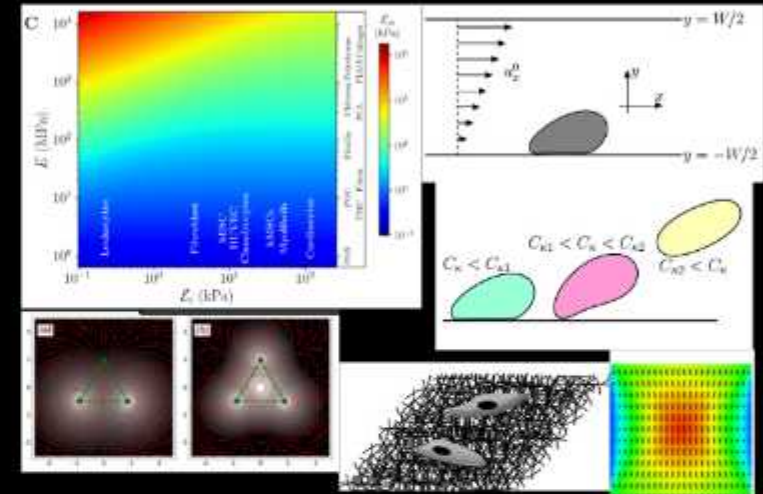
- Constitutive modeling of tissues and their substitutes
- Modeling of gene networks and mechanics in embryonic development
- Biomechanics of cancer metastasis

Major Research Facilities in the Group

- High performance computing

Technology/Product Developed/Up to 3 most significant Publications

- Flow driven vesicle unbinding under mechanosensitive adhesion, Rizvi et al., 2022, Soft Matter
- A reduced model for a phoretic swimmer, Farutin et al., 2022, JFM
- Rheological signature of microswimmer phase-locking under flow, Rizvi et al., 2019, PR Fluids



Subha Narayan Rath

Professor

Regenerative medicine and stem cell lab, Department of Biomedical Engineering

BM-203, +91 2301 6103, subharath@bme.iith.ac.in; Webpage: <https://www.iith.ac.in/bme/subharath/>

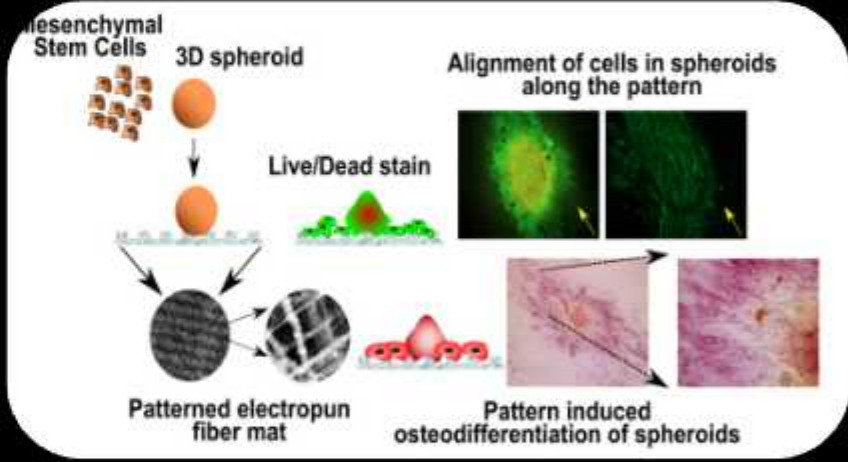


Major Areas of Research/Up to 3 major sponsored projects

- 1. 3D printed bone, cartilage and vessels using stem cells
- 2. Macroencapsulatoin device for diabetes
- 3. 3D printed microfluidic device for drug testing

Major Research Facilities in the Group

- 1. Primary stem cell culture facility
- 2. Bioreactors for mechanical stimulation
- 3. 3D bioprinting facility



Technology/Product Developed/Up to 3 most significant Publications

- 1. 3D printed bone for maxillofacial reconstruction
- 2. Microfluidic device for cancer cell-drug interaction studies
- 3. Electrospun device for allogenic islet cell therapy: [details in link here](#)