

# [Scdt] SCDT-FlexE Seminar on 22.12.2020 at 5:05 PM

1 message

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Fri, Dec 18, 2020 at 8:04 PM

Link to SCDT & FlexE Centre Seminars

<https://zoom.us/j/95321195135?pwd=bi9PNXh6czBBNHNadU1ZeDV6VzB1UT09>

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An SCDT and FlexE Centre talk on  
"Fabrication and characterization of polymer / nanocomposites for  
biomedical and industrial applications"

by  
Abhinay Mishra  
([abhinay.mst@gmail.com](mailto:abhinay.mst@gmail.com))

Date: 22nd December, 2020 (Tuesday)  
Time: 5:05 PM to 6 PM  
Seminar via Zoom (link given at the top of this email)

The summary of the talk and a brief bio of the speaker are given below.  
All interested and are welcome join the seminar.

## Summary of the talk

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Fabrication of polymer / nanocomposite scaffolds has gained tremendous attention in recent years due to its applications in biomedical and industrial research. In this talk, I will describe the fabrication and characterization of bio-stable thermoplastic polyisobutylene (PIB) based polyurethanes (PUs) for cardiovascular implants. Effect of hydrolytic degradation on the structure & properties of PIB based PUs. In addition, I will discuss about the fabrication of well-defined PCL-CNT nanocomposite scaffolds using 3D printer and its potential to be used in cardiac tissue engineering. Finally, I will explain about the fabrication SU-8 microstructures for waveguide applications and gelatin scaffolds for biological studies through direct laser writing (DLW).

## Short Biography of Speaker

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Dr. Mishra has received his M.Tech. and [Ph.D.in](#) Materials Science and Technology in 2008 and 2012, respectively from Indian Institute of Technology (BHU), Varanasi. He then moved to US and worked as a Postdoctoral Associate in a joint project between University of Massachusetts and Boston Scientific Corporation from 2012 to 2014. In 2014, he moved to Singapore and worked as a Research Fellow in Nanyang Technological University from 2014 to 2017; followed by Research Scientist (Grade-1) in Singapore-MIT Alliance for Research and Technology from 2017 to 2020.

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