

Schedule

FDP Application Number: 1716403264

Title of the FDP: Bio-Printing of Tissues and Organs An Evolution of Technology and Materials

FDP Start Date: 18.11.2024

FDP End Date: 30.11.2024

Offline (1st Week)

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
9:00 – 9:30 - Inauguration					
<p>9:30 – 12:00 Session 1</p> <ol style="list-style-type: none"> Name of the Expert: Dr. Y. Ravi Kumar. Designation: Professor, In charge Additive Manufacturing Facility Organization: National Institute of Technology Warangal (NITW) Experience in Years:18 Topic to be taught: Advanced Bio-materials and Modelling Tools in Bio-medical Applications 	<p>9:30 – 12:00 Session 3</p> <ol style="list-style-type: none"> Name of the Expert: Dr. Manu Srivastava. Designation: Assistant Professor. Organization: IIITDM Jabalpur. Experience in Years: 17 Topic to be taught: 3D Bioprinting for Tissue Regeneration 	<p>9:30 – 12:00 Session 5</p> <ol style="list-style-type: none"> Name of the Expert: Himansu Sekhar Nanda. Designation: Assistant Professor. Organization: IIITDM, Jabalpur. Experience in Years: 9 Topic to be taught: 3D Bioprinting for Tissue Regeneration - Current Challenges and Perspective. 	<p>9:30 – 12:00 Session 7</p> <ol style="list-style-type: none"> Name of the Expert: Kishore Kumar Gajrani. Designation: Assistant Professor. Organization: IIITDM Kancheepuram. Experience in Years: 7 Topic to be taught: Current Challenges and Future Aspects of 3D Bioprinting Techniques. 	<p>9:00 – 12:00 Session 9</p> <ol style="list-style-type: none"> Name of the Expert: Industry Expert Mr. Praveen Jadi. Designation: Manager/3D Products and Solutions. Organization: 3D Mono Tech, Chennai. Experience in Years: 6 Topic to be taught: 3D Organ Printing Technology- The Future of Organ Transplants. 	<p>9:00 – 12:00 Session 12</p> <ol style="list-style-type: none"> Name of the Expert: Industry Expert Raghu Prasad. C. Designation: Manager – Phillips Additive. Organization: Phillips M/C Tools India Pvt. Ltd., Mumbai. Experience in Years: 7 Topic to be taught: Overview of Materials and Techniques in 3D Bioprinting.
<p>12:00 – 1:00 Article Discussion</p> <ol style="list-style-type: none"> Title of the Research Paper: 3D printing of biomedical materials and devices Name of the journal: Journal of Materials Research-Springer Year of Publication: 2021 	<p>12:00 – 1:00 Article Discussion</p> <ol style="list-style-type: none"> Title of the Research Paper: An Overview on Materials and Techniques in 3D Bioprinting Toward Biomedical Application Name of the journal: Engineered Regeneration- Science Direct Year of Publication: 2021 	<p>12:00 – 1:00 Article Discussion</p> <ol style="list-style-type: none"> Title of the Research Paper: Natural and Synthetic Bioinks for 3D Bioprinting Name of the journal: Advanced NanoBiomed Research-Wiley Year of Publication: 2021 	<p>12:00 – 1:00 Article Discussion</p> <ol style="list-style-type: none"> Title of the Research Paper: The Regulatory Challenge of 3D Bioprinting Name of the journal: Regenerative Medicine-Taylor & Francis Year of Publication: 2023 		
1:00 – 1.30 -Lunch	1:00 – 1.30 -Lunch	1:00 – 1.30 -Lunch	1:00 – 1.30 -Lunch	12:00-12:30- Lunch	1:00 – 1.30 -Lunch
<p>1.30-4.00 Session 2</p> <ol style="list-style-type: none"> Name of the Expert: Dr. Y. Ravi Kumar. Designation: Professor, In charge Additive Manufacturing Facility Organization: National Institute of Technology Warangal (NITW) Experience in Years: 18 Topic to be taught: 3D Bio-printing in complex bio-medical case studies 	<p>1.30-4.00 Session 4</p> <ol style="list-style-type: none"> Name of the Expert: Dr. Manu Srivastava Designation: Assistant Professor. Organization: IIITDM Jabalpur. Experience in Years: 17 Topic to be taught: 3D Bioprinting for Organ Regeneration 	<p>1.30-4.00 Session 6</p> <ol style="list-style-type: none"> Name of the Expert: Himansu Sekhar Nanda. Designation: Assistant Professor. Organization: IIITDM, Jabalpur. Experience in Years: 9 Topic to be taught: 3D Bioprinting of Cartilage Tissue -Current Challenges and Perspective 	<p>1.30-4.00 Session 8</p> <ol style="list-style-type: none"> Name of the Expert: Kishore Kumar Gajrani. Designation: Assistant Professor. Organization: IIITDM Kancheepuram. Experience in Years: 7 Topic to be taught: Cost effective 3D Bioprinting methods 	<p>12:30 – 3.00 Session 10</p> <ol style="list-style-type: none"> Name of the Expert: Srinivasa Prakash Regalla. Designation: Professor. Organization: BITS Pilani, Hyderabad Experience in Years:25 Topic to be taught: Mechanical Considerations of Bio printed Tissue 	<p>1.30 – 4:00 Session 13</p> <ol style="list-style-type: none"> Name of the Expert: Prashant K. Jain. Designation: Professor. Organization: IIITDM, Jabalpur. Experience in Years: 17 Topic to be taught: Data preparation and current research trends in Additive Manufacturing
<p>4:00 – 5:00 Article Discussion</p> <ol style="list-style-type: none"> Title of the Research Paper: 3D printing technology; methods, biomedical applications, future opportunities and trends Name of the journal: Journal of Materials Research and Technology -Science Direct Year of Publication: 2021 	<p>4:00 – 5:00 Article Discussion</p> <ol style="list-style-type: none"> Title of the Research Paper: Advances in 3D bioprinting of tissues/organs for regenerative medicine and in-vitro models Name of the journal: Biomaterials- Science Direct Year of Publication: 2022 	<p>4:00 – 5:00 Article Discussion</p> <ol style="list-style-type: none"> Title of the Research Paper: 3D bioprinting: Materials, processes, and applications Name of the journal: CIRP Annals Year of Publication: 2022 	<p>4:00 – 5:00 Article Discussion</p> <ol style="list-style-type: none"> Title of the Research Paper: Wearable and implantable devices for drug delivery: Applications and challenges Name of the journal: Biomaterials- Elsevier Year of Publication: 2022 	<p>3:00 – 5:30 Session 11</p> <ol style="list-style-type: none"> Name of the Expert: Srinivasa Prakash Regalla. Designation: Professor. Organization: BITS Pilani, Hyderabad. Experience in Years: 25 Topic to be taught: Organ Modeling 	<p>4:00 – 5:00 Article Summary</p>

Offline (2nd Week)

Day 7	Day 8	Day 9	Day 10	Day 11	Day 12
9:30 – 12.00 Session 14	9.30-5.00 Industry based problem solving	9.30-5.00 Industry based problem solving	9.30-5.00 Industry based problem solving	9.30-5.00 Industry based problem solving	9.30-1.30 - Team wise presentation of the output
<ol style="list-style-type: none"> 1. Name of the Expert: <i>Dr. Mamilla Ravi Sankar.</i> 2. Designation: <i>Professor.</i> 3. Organization: <i>IIT, Tirupathi.</i> 4. Experience in Years: 15 5. Topic to be taught: <i>3D Printing of Animal inspired microfluidics for Ayurvedic Biomedical Applications</i> 	<ol style="list-style-type: none"> 1. Name of the Organization: <i>Medical Technology in India, Healthcare Devices, IoT in AMTZ</i> 2. Complete address with pin code: <i>Campus Pragati Maidan VM Steel Project S.O Vizag, Pin -530031 Andhra Pradesh – India</i> 3. Industry Type: <i>Manufacturing and Research</i> 4. Area of specification: <i>Creation and customization of medical devices and implants tailored to individual patients' needs.</i> 	<ol style="list-style-type: none"> 1. Name of the Organization: <i>Medical Technology in India, Healthcare Devices, IoT in AMTZ</i> 2. Complete address with pin code: <i>Campus Pragati Maidan VM Steel Project S.O Vizag, Pin -530031 Andhra Pradesh – India</i> 3. Industry Type: <i>Manufacturing and Research</i> 4. Area of specification: <i>Creation and customization of medical devices and implants tailored to individual patients' needs.</i> 	<ol style="list-style-type: none"> 1. Name of the Organization: <i>Medical Technology in India, Healthcare Devices, IoT in AMTZ</i> 2. Complete address with pin code: <i>Campus Pragati Maidan VM Steel Project S.O Vizag, Pin -530031 Andhra Pradesh – India</i> 3. Industry Type: <i>Manufacturing and Research</i> 4. Area of specification: <i>Creation and customization of medical devices and implants tailored to individual patients' needs.</i> 	<ol style="list-style-type: none"> 1. Name of the Organization: <i>Medical Technology in India, Healthcare Devices, IoT in AMTZ</i> 2. Complete address with pin code: <i>Campus Pragati Maidan VM Steel Project S.O Vizag, Pin -530031 Andhra Pradesh – India</i> 3. Industry Type: <i>Manufacturing and Research</i> 4. Area of specification: <i>Creation and customization of medical devices and implants tailored to individual patients' needs.</i> 	1.30-2.00- Lunch
12:00 – 1:00 - Lunch					2.00-3.00 Reflection journal
1:00 – 3:30 Session 15					3.00-4.00 - Feedback
<ol style="list-style-type: none"> 1. Name of the Expert: <i>Dr. Mamilla Ravi Sankar.</i> 2. Designation: <i>Professor.</i> 3. Organization: <i>IIT, Tirupathi.</i> 4. Experience in Years: 15 5. Topic to be taught: <i>Finishing of 3D Printed Complex Biomedical Devices</i> 					4.00-5.00 Valedictory Session
3:30 – 6.00 Session 16					
<ol style="list-style-type: none"> 1. Name of the Expert: <i>Rakesh Koppunuru.</i> 2. Designation: <i>Technical Cum Industry Officer.</i> 3. Organization: <i>National Centre for Additive Manufacturing (NCAM).</i> 4. Experience in Years: 12 5. Topic to be taught: <i>Commercial aspects of Bio printed Implants</i> 					