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The Scientific interests are focused on the following topics

- Polymer blends and composites.
- Upcycling of polymeric waste
- Polymer crystallization under processing conditions.
- Post processing behavior of semi-crystalline polymers.
- Synthesis of (m, n) Poly (amides) and morphology and structure development.

#### **Ongoing projects**

- Principal Investigator for NPST Project No. 13ADV1044-02 entitled “Optimization of phosphorescence emission in PP/strontium aluminate composites”. Project work in progress since Jan 2020 onwards.
- Co-Investigator for NPST Project No. 13NAN1120-02 entitled “The functionalization of nano-cellulose extracted from date palms for photonic-based applications” Project work in progress since Jan 2020 onwards.

#### **Publications in last three years (2020-2022)**

1. Effect of Compatibilizer on the Persistent Luminescence of Polypropylene/Strontium Aluminate Composites, **Anesh Manjaly Poulouse**, Hamid Shaikh, Arfat Anis, Abdullah Alhamidi, Nadavala Siva Kumar, Ahmed Yagoub Elnour and Saeed M. Al-Zahrani, *Polymers*, 2022, 14, 1711

2. Long Persistent Luminescent HDPE Composites with Strontium Aluminate and Their Phosphorescence, Thermal, Mechanical, and Rheological Characteristics, **Anesh Manjaly Poulose**, Hamid Shaikh, Arfat Anis, Abdullah Alhamidi, Nadavala Siva Kumar, Ahmed Yagoub Elnour and Saeed M. Al-Zahrani, *Materials* 2022, 15, 1142
3. Date-Palm-Derived Cellulose Nanocrystals as Reinforcing Agents for Poly (vinyl alcohol)/Guar-Gum-Based Phase-Separated Composite Films, Hamid M. Shaikh, Arfat Anis, **Anesh Manjaly Poulose**, Niyaz Ahamad Madhar, and Saeed M. Al-Zahrani *Nanomaterials* 2022, 12, 1104
4. Synthesis and Characterization of Cellulose Triacetate Obtained from Date Palm (*Phoenix dactylifera* L.) Trunk Mesh-Derived Cellulose, Hamid M. Shaikh, Arfat Anis, **Anesh Manjaly Poulose**, Saeed M. Al-Zahrani, Niyaz Ahamad Madhar, Abdullah Alhamidi, Saleh Husam Aldeligan and Faisal S. Alsubaie, *Molecules*, 2022, 27, 1434
5. Characterization of Thermal, Ionic Conductivity and Electrochemical Properties of Some p-Tosylate Anions-Based Protic Ionic Compounds, Arfat Anis, Manawwer Alam, Abdullah Alhamidi, Mohammad Asif Alam, Ravindra Kumar Gupta, Mohammad Tariq, Hamid Shaikh, **Anesh Manjaly Poulose** and Saeed M. Al-Zahrani, *Crystals* 2022, 12, 507
6. Development of Bigels Based on Date Palm-Derived Cellulose Nanocrystal-Reinforced Guar Gum Hydrogel and Sesame Oil/CandelillaWax Oleogel as Delivery Vehicles for Moxifloxacin, Hamid M. Shaikh, Arfat Anis, **Anesh Manjaly Poulose**, Niyaz Ahamad Madhar and Saeed M. Al-Zahrani *Gels* 2022, 8, 330
7. Utilization of PET waste as a carbon filler in polypropylene matrix: Investigation of mechanical, rheological and thermal properties; *Journal of Applied Polymer Science* 2021, 138, 50292, **Anesh Manjaly Poulose**, Ahmed Yagoub Elnour, Nadavala Siva Kumar, Abdullah Alhamidi, Justin George, Ebrahim H. Al-Ghurabi, Mourad Boumaza, Saeed Al-Zahrani
8. Strontium aluminate based long afterglow PP composites: phosphorescence, thermal and mechanical characteristics, *Polymers* 2021, 13(9), 1373, **Anesh Manjaly Poulose**, Arfat Anis, Hamid Shaikh, Abdullah Alhamidi, Nadavala Siva Kumar, Ahmed Yagoub Elnour, Saeed M. Al-Zahrani
9. Biochar/Polypropylene Composites: A Study on the Effect of Pyrolysis Temperature on Crystallization Kinetics, Crystalline Structure, and Thermal Stability. *Journal of King Saud*

University-Science, 2021, 101409, Abdulaziz Alghyamah, Ahmed Yagoub Elnour, Hamid shaikh, Sajjad Haider, **Anesh M Poullose**, Saeed M Al-Zahrani, Waheed A. Almasry, Soo Young Park

10.Isolation and Characterization of Alpha and Nanocrystalline Cellulose from Date Palm (Phoenix dactylifera L.) Trunk Mesh, Polymers 2021, 13, 1893, Hamid Shaikh, Arfat Anis, **Anesh Manjaly Poullose**, Saeed M. Al-Zahrani, Niyaz Ahamad Madhar, Abdullah Alhamidi, Mohammad Asif Alam

11.Economic designing of high-performance flexible supercapcitor based on cotton leaf derived porous carbon and natural ocean water. Journal of Energy storage 2021, Yanna Mao, Nadavala Sivakumar, Abhishek Dhar, **Anesh Manjaly Poullose**, Muhammad Kashif, Ebrahim H. Al-Gurabi, Mohammad Asif, Mourad Boumaza, Yongtao Duan, Rohit I. Vekariya,

12.Influence of SiO<sub>2</sub> Content and Exposure Periods on the Anticorrosion Behavior of Epoxy Nanocomposite Coatings: Coatings, 2020, 10, 118, Mohammad Asif Alam, Ubair Abdus Samad, El-Sayed M. Sherif, **Anesh Manjaly Poullose**, Jabair Ali Mohammed, Nabeel Alharthi and Saeed M. Al-Zahrani

### **Education:**

PhD in Chemical Engineering of Materials from Palermo University Italy (2011)

Masters in Polymer technology (M. Tech) from Cochin University of Science and Technology (CUSAT), India (2006)

Masters in Science (M. Sc Chemistry) from Calicut University, India (2003)

### **References:**

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