



## REMOTE WORK OFFER

Ref. No. IN-2020-30780-MU

### Employer Information

**Employer:** Manipal Institute of Technology  
Department of Chemistry  
1st Floor, Academic Block-4, MIT, Manipal  
  
576104 Manipal  
India

**Website:** <http://www.manipal.edu>

**Location of placement:** Work from home  
**Working hours per week:** 25.0  
**Working hours per day:** 5.0  
**Remote Offer Type:** NA

**Number of employees:** 500

**Business or products:**

### Student Required

**General Discipline:** 40C-CHEMISTRY, MATERIAL SCIENCE, AND  
CHEMICAL ENGINEERING

**Completed years of study:** 2

**Field of Study:** 40.0501-Chemistry, General.  
40.0507-Polymer Chemistry.  
40.1001-Materials Science.

**Student status requirements:** Yes

**Language required:** English Excellent

**Required Knowledge and Experiences:**

**Other requirements:**

Basic knowledge of Chemistry or Polymer chemistry or Material Sciences.

### Work Offered

Synthesis and Characterization of Antimicrobial Polymers

Detailed Project Description:

In spite of outstanding advances in medicine, science and public health in the present century the most daunting problems of human health in today's life is deadly infections caused by pathogenic microbes. Bacteria and fungi are the major microbial agents for the cause of microbial infections. On the contrary, the escalating microbial infections are due to antibiotic-resistant microbes in developed countries. Antimicrobial resistance (AMR) scares the effective prevention and treatment of ever-growing infections caused by bacteria, parasites, viruses and fungi. Therefore, new prevention and control strategies are urgently required. The control of spreading microbes causing infectious diseases has become a great concern in many areas like in water purification systems, medical devices, hospital surfaces (nosocomial infection) and surgery equipment, drugs, aeronautics, food storage and packaging, textile products, domestic appliances, dental restoration, health-care products, biomedical devices, and so on Antimicrobial technologies are spreading rapidly in many small and large scale applications. Increase in antibiotic resistance has attracted interest in finding effective methods for killing microorganisms causing infectious disease. Antimicrobial polymers are a group of biocides that has become an alternative to some existing biocides and antibiotics.

Outcomes of the Project:

In-depth understanding of antimicrobial polymers- methodology, methods of synthesis, characterization techniques, Reviewing existing techniques of antimicrobial polymers and their applications.

Expected Results:

At least one or two antimicrobial polymers will be synthesized and characterized. Student will be in the position of understanding the synthetic and characteristic aspects very well and work in the field of antimicrobial polymers for the future scope.

Work Plan:

1. The intern is expected to work about 4-6 hours per day.
2. At least one meeting per week will be held.
3. The intern will be guided through a suitable online platform and has to give a presentation via call.

**Number of weeks offered:** 6 - 8

**Within the months:** 20-AUG-2020 - 30-NOV-2020

**Or within:** -

**Company closed within:** -

**Gross pay:** 0 INR / Month

**Deduction to be expected:** 0

**Payment method / time of first / payment:**

**Latest possible start date:**

### Additional Information

### Nomination Information

**Deadline for nomination:** 25-AUG-2020

**Date:** 19-AUG-2020

**On behalf of receiving country:**

Siddharth Chadha