



WORK OFFER

Ref. No. IN-2020-31407-MU

Employer Information

Employer: Manipal Institute of Technology
Electronics and Communication Engineering
1st Floor, Academic Block-4, MIT, Manipal
576104 Manipal
India

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

Location of placement: Manipal
Nearest airport: Mangalore
Working hours per week: 40.0
Working hours per day: 8.0

Number of employees: 500
Business or products:

Student Required

General Discipline: 14C-ELECTRICAL AND ELECTRONICS ENGINEERING
Completed years of study: 3

Field of Study: 14.1099-Electrical, Electronics and Communications Engineering, Other.
Student status requirements: required during internship

Language required: English Excellent

Required Knowledge and Experiences: Good understanding of Communication Systems, Probability and Statistics. Comfortable in programming with MATLAB or Python or C++

Other requirements:

Work Offered

The backbone to a current communication network is the optical fiber i.e. the core network and user or subscribers are connected via an access network that uses coaxial or copper or wireless RF using electrical signals. This creates a speed bottleneck which is known as the "last mile bottleneck" problem. Free space optical (FSO) communication, provides a solution to this problem offering a cheaper and less complex option to its optical fiber-based counterpart. By transmitting highly directional narrow beams of light over the atmosphere, FSO based communication is inherently immune to interception which makes eavesdropping and jamming nearly impossible. Features like these have rendered FSO communication very appealing for several applications such as fiber backup, back-haul for wireless cellular networks and disaster recovery. FSO communication has received increasing attention in recent years for its ability to achieve ultra-high data rates (at the order of multiple gigabits per second) over the unlicensed optical spectrum. A major degrading factor, particularly in long links, is the atmospheric turbulence-induced fading or scintillation. Intelligently exploiting the fact that the fading variance in an FSO channel is distance-dependent, relay-assisted transmission takes advantage of the resulting shorter hops and yields significant performance improvements and extending the communication link. The project work proposed here will be focused on developing the analytical model for FSO systems employing optical amplifiers to mitigate the effect of scintillation.

Number of weeks offered: 6 - 8
Working environment: Research and development

Within the months: 01-JUN-2020 - 15-NOV-2020
Gross pay: 7000 INR / Month

Or within: -
Deduction to be expected: 15%

Company closed within: -
Payment method / time of first / payment:

Latest possible start date:

Accommodation

Canteen at work: Yes

Expected type of accommodation: Student dormitory
Estimated cost of lodging: 0 INR / Month

Accommodation will be arranged by: IAESTE India LC Manipal
Estimated cost of living incl. lodging: 4500 INR / Month

Additional Information

For more information about the local committee: <http://explore.iaeste.in/mu>

Nomination Information

Deadline for nomination: 30-MAY-2020

Date: 30-APR-2020
On behalf of receiving country: Siddharth Chadha