



IAESTE India

WORK OFFER

Ref. No. IN-2016-0604-MU

Employer Information

Employer:

MANIPAL INSTITUTE OF TECHNOLOGY

576104 MANIPAL
KARNATAKA
India

Website:

<http://www.manipal.edu>

Location of placement:

MANIPAL

Number of employees:

500

Working hours per week:

40

Working hours per day:

8

Business or products:

Student Required

Field of Studies:

Chemistry, Chemical Engineering

Study Level:

Middle (4-6 semesters)

Specialization:

Material Science/ Chemistry

Language required:

English excellent

Other requirements:

Work Offered

Work description:

The project will be based on synthesis of Nano materials like CeO₂, Al₂O₃ with high surface area using Sol-Gel Technique. This technique is widely employed due to its capability in controlling the textural and surface properties of the resulting oxides. The sol-gel approach is interesting in that it is a cheap and low-temperature technique that allows for the fine control on the product's chemical composition. The sol-gel process is a wet-chemical technique that uses either a chemical solution or colloidal particles (called as sol) to produce an integrated network (gel). Metal alkoxides and metal chlorides are typical precursors. They undergo hydrolysis and polycondensation reactions to form a colloid, a system composed of nanoparticles dispersed in a solvent. The sol evolves then towards the formation of an inorganic continuous network containing a liquid phase (gel). After a drying process, the liquid phase is removed from the gel. Then, a thermal treatment (calcination) may be performed in order to favor further polycondensation and enhance mechanical properties.

Number of weeks offered: 12 - 16

Within the months: 01-JUL-2016 to 30-OCT-2016

Or within:

Holidays:

Working environment: Research and Development

Gross pay: 6000.00 INR monthly

Deduction to be expected: 17%

Accommodation

Lodging will be arranged by: IAESTE INDIA LC MANIPAL

Estimated cost of lodging: 0.00 INR monthly

Estimated cost of living: 4500.00 INR monthly

Additional information

Nomination information

Deadline for nomination: 30-MAR-2016

Please send nominations by IntraWeb

Date: 22-MAR-2016

On behalf of receiving country: Yash Dhanuka