

REQUIREMENT OF STUDENT INTERNS SPRING 2018-19

Date of announcement: 13 February 2019

Last date for submission of applicaiton: 21 February 2019

**Those who have already applied for the same topic code against
announcement dated 10 January 2019 need not apply again**

S. No	Topic Code	Topic	Required Qualifications	Study Duration	Vacancy
2	MAT02	Study on availability, extraction and processing of materials and minerals which are critical in Indian context	Completed B.E. / B.Tech or equivalent in Material Science / Metallurgy and related disciplines and pursuing Master's degree in the same. Desirable : <ul style="list-style-type: none"> • Good knowledge about Indian economy, export-import of minerals / materials, etc. • Good at data mining, information extraction, compilation, etc. 	6-12 months	2
5	FPT03	Traditional Food	Pursuing M. Tech. in Dairy Technology/ Food Technology or Biotechnology/ Chemical Technology/Agricultural Engineering etc. with subjects related to Food Processing Technology	12 months	1

MAT02: Securing Critical Resources Commensurate with the size of the country

Background/ significance in brief	"Securing Critical Resources Commensurate with the Size of the Country" has been identified as Grand Challenge 3 out of ten Grand Challenges flagged in the Technology Vision 2035 document. In the TV 2035 document, only concept of the grand challenge has been introduced briefly. A detailed study is required to understand the issue at depth and also to carve out action plan for various stake holders towards securing our critical mineral resources. The study will have two parts : Critical metals and Advanced Materials.
Objectives	A detailed study is planned involving thorough analysis of different materials in terms of their criticality with respect to the growth of the country and future technology delivery and also to carve out action plan for various stake holders towards securing our critical mineral resources.
Scope of the study	To understand and define parameters for criticality of materials and to identify the materials critical for Indian economy. Each metal / material will primarily be studied for availability of the resource, technologies for processing / extraction / manufacturing, applications / derivatives (including alternatives available), volumes / value addition, action plan / recommendations, etc.

FPT03: Traditional Food

Background/ significance in brief	The study would identify the existing traditional technologies being practiced for manufacturing the aforesaid traditional foods vis-à-vis the scientific validation of the technologies. The study would also identify the latest existing technologies being practiced for commercial manufacturing of the aforesaid products. The scope of implementation of automation for processing of above products would also be examined.
Objectives	Understanding the science and developing process technologies to make large scale production possible.
Scope of the study	The specific traditional food to be focused are jilebi, gajak, idli, gaja (jibe gaja), dhokla, sohan papri, seasoned roasted dhal mix. etc. Having increased shelf life.
