



National Institute for Interdisciplinary Science and Technology (NIIST), Thiruvananthapuram

Council of Scientific & Industrial Research (CSIR)
Ministry of Science and Technology, Govt of India



Short term training program on

“Chemical and Metallurgical Process Calculations”

The National Institute for Interdisciplinary Science and Technology (NIIST), Thiruvananthapuram, is a constituent Laboratory of the Council of Scientific and Industrial Research (CSIR). CSIR-NIIST is engaged in R & D programs and has established state of the art facilities for research in the areas of Environmental Technology, Chemical Sciences and technology, Agro-processing and technology, Materials Science and Technology, and Microbial processes & technology. CSIR-NIIST is QCINABET accredited category-A EIA consultant having accreditations in Mining of Minerals and Ports & Harbors. The institute has also been playing a significant role in Human Resource Development by training post graduate/graduate students, with over 500 Ph.D. degrees awarded till date based on research conducted in the institute.



Date : **Nov 26-27, 2021**

Time : **10am to 1pm**

Course Fees :

Students/Research scholars : Rs. 750/-

Industries/Sponsored candidates : Rs. 1500/-

Apply Online : <http://sdp.niist.res.in>

Payment mode : **Online**

Course Benefits :

- Fundamental concepts and process depictions
- *Case Study* : Material & Energy Balance
 - ✓ Iron Making Process
 - ✓ Alloy development
 - ✓ Sol-gel synthesis
 - ✓ Combustion of fuels (solid, liquid & gas)
 - ✓ Absorption & Desorption
- *Excel Sheet based process models*

Eligibility :

Graduate in Science/Engineering

Topics Covered :

- Material Balances : Strategy for Solving Material Balance Problems with & without Chemical Reaction (single and multiple reactions) and Elemental Balance
- Combustion Reactions, Stoichiometry ratio, Chemical Reactions, Limiting & Excess Reagents & Degree of Completion
- Energy balance calculations
- Thermodynamics concepts and its impacts on process efficiency

The participants will receive a Certificate & Course material (soft copy)

Resource Persons :

Dr. S Savithri, Chief Scientist, CSIR – NIIST
Dr. Ramachandran, Prof, Bhartiya University
Dr. Karthik V, Asst Prof, NIT Trichy
Dr. Paneer Selvam, Asst Prof, NIT Calicut
Mr. Mrunmaya KP, Senior Mgr, JSW Steel Ltd
Dr. Deepak Nayak, Senior Scientist, CSIR-IMMT

Course Coordinators

Convener, SDP

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