



**National Productivity Council**

## **Training Programme** On

**APPLICATION OF ARTIFICIAL INTELLIGENCE & MACHINE  
LEARNING IN POWER SECTOR**  
PROGRAMME CODE: (TP/22-23/105)

**21-23 December 2022**  
**(Gangtok, Sikkim)**



## **1. ABOUT NPC**

National Productivity Council (NPC) is an autonomous organization under the Department of Promotion of Industry and Internal Trade, Ministry of Commerce & Industry, Government of India. The present expertise available in NPC has a resource base of professionals from fields such as Economics, Industrial Engineering, Human Resource Management, Energy, Environment, IT, Project Monitoring and Evaluation, Research Studies and Baseline Surveys. In addition, services of external professionals and subject matter specialists are also sought on need basis, depending upon the nature and scope of work. NPC extends services from its headquarter at New Delhi and 12 regional offices across the country manned by more than 100 full time professionals. NPC has professionals from diverse fields to provide Consultancy, Capacity Building and Project Monitoring Unit (PMU) services to various organisations including Central Government Ministries and State Governments.

## **2. PROGRAMME THEME**

An Energy System can be a combination of mechanical, chemical and electrical components, and it can encompass a wide range of energy types including renewables and other alternative energy sources. Scaled-up progress faces a crucial decision-making crisis as most Energy Systems at times struggle to meet demand–supply ratios and optimize performance, stabilize performance quality, have a limited understanding of the environmental effect of energy outcomes, and are less useful in the renewable energy sector. Energy companies generate massive amount of structured and unstructured data. IoT and Smart Tech are also helping to gather large amount of data on energy output and use. To address the issue of their useful interpretation, Machine learning (ML) models have been widely used in modelling, design and prediction in different categories of Energy Systems. This Program broadly covers the advancement and application of various types of ML models for Energy Systems with a focus on the Power Distribution sector.

## **3. LEARNING OBJECTIVES**

- Energy Systems, Machine Learning & Models – Concepts
- Deep Learning or Advanced Machine Learning for power quality disturbances
- Waste Minimization Technique
- Electricity market price prediction using advanced machine learning
- Power Sector - Overview
- Power Distribution Sector – Era of Reforms
- Role of IT – Implementation & Impact in Power Distribution Sector
- Smart Metering Tech in Distribution Reforms

## **4. METHODOLOGY**

Methodology of the training program would be participative in nature. The sessions would be based on conceptual deliberations, Case Studies, Sectoral Schemes and group discussions.

## **5. PARTICIPANTS' PROFILE**

Officials from Central & State Government Departments and professionals from Public Sector Undertakings, Private Sector Units, Co-operative Sector Organizations, Financial Institutions, NBFCs, Corporations, Labor Unions/Associations, Academic Institutions etc.

## 6. FACULTY

The Faculty for the training programme will comprise of senior Officials CPSUs, IIT Professors / Researchers & senior NPC Officers from the respective domain.

## 7. PROGRAMME FEE & VENUE

<b>Programme Code</b>	TP/22-23/105	
<b>Program Venue</b>	Gangtok, Sikkim	
<b>Programme Fee</b>	Residential Participants: ₹40,000/- + 18% GST	Non-Residential Participants: ₹18,300/- + 18% GST

## 8. PAYMENT DETAILS

Programme fee inclusive of GST to be paid in advance and proof of payment to be attached along with application form.

- **ECS Payment Details:** Indian Overseas Bank, 70, Golf Link, New Delhi Branch; A/c No. 026501000009207, IFSC Code. IOBA0000265
- DD/Cheque should be drawn in the name of NATIONAL PRODUCTIVITY COUNCIL payable at NEW DELHI
- NPC'S PAN No: AAATN0402F, NPC'S GSTIN: 07AAATN0402F1Z8

*As per GOI notification No. 9/2017-Integrated Tax (Rate) dated 28.06.17, Sr. No. 75, Heading 9992 (at page no. 19 of the notification) No GST is applicable where Services provided to the Central Government, State Government, UT Administration under any training programme for which total expenditure is borne by the Central Government, State Government, UT Administration.*

- **NPC shall offer 10% discount on programme fee to organizations sponsoring 5 – 10 participants and 15% discount on programme fee to organizations sponsoring more than 10 participants.**

## 9. HOW TO APPLY

- Please apply in prescribed application format enclosed with this brochure. Nominations may be sent to the following address:

**The Training Coordinator  
National Productivity Council  
5-6 Institutional Area  
Lodhi Road  
New Delhi – 110003  
Email Id: [npctraining@npcindia.gov.in](mailto:npctraining@npcindia.gov.in)  
Tel: 011-24607319**

- **Last date for Receiving of nominations: 5<sup>th</sup> December, 2022.**

## 10. GENERAL INSTRUCTIONS

- ❖ Due to limited number of seats, it is recommended to send the nominations as per attached format at the earliest, for ensuring the availability. Acceptance of the nominations is subject to the seat availability and receipt of programme fee latest by the last date for nominations.
- ❖ The Residential programme fee covers the professional fees towards training, board & lodging of the Participant(s). The fee once deposited is non-refundable, however, substitutions are allowed.
- ❖ Each participant should carry their ID cards and necessary letters / orders issued by their department for attending the training program.
- ❖ The Non Residential programme fee covers the professional fee towards training, lunch and refreshments during the training program. The fee once deposited is non-refundable, however, substitutions are allowed.
- ❖ NPC shall not bear any charges towards participants' to & fro travel from their residence / place of stay and the training program venue. All participants shall make their own arrangement to reach the venue on time as per the programme schedule.
- ❖ Participants are requested to assure their health and safety during the training period and NPC will not be liable for medical expenses incurred by the participants during the program.
- ❖ NPC will not provide board and lodging before and after the dates of programme. Participants planning to stay longer than the scheduled duration should arrange the same at their own cost.
- ❖ Settlement of additional bills: The hotel will be instructed to open separate folio for each participant. Participants may directly settle their additional dues regarding family member, laundry, telephone, mini bar, room service, overstay etc. with the hotel before checkout.
- ❖ The participants shall be awarded Certificate of Participation on successful completion of programme.
- ❖ Any other terms and conditions apply as may be notified by NPC at any point of time.
- ❖ Referring to GST guidelines, you are requested to confirm the applicability of GST payment for your department.
- ❖ Participants are required to follow the necessary COVID protocols during training.

**NATIONAL PRODUCTIVITY COUNCIL**  
**5-6 Institutional Area, Lodhi Road, New Delhi – 110003**  
**[npctraining@npcindia.gov.in](mailto:npctraining@npcindia.gov.in)**

**APPLICATION FORM FOR NOMINATIONS**

Title of Programme:

Programme Code:

Programme Duration:

Location:

**Details of Nominated Participants:**

S. No	Name of Delegate	Designation	Mobile No.	Email ID	Official Address for correspondence
1					
2					
3					
4					
5					

**Details of Nominating Authority:**

Name:

Designation:

Organization:

Address

Contact Number:

Email ID:

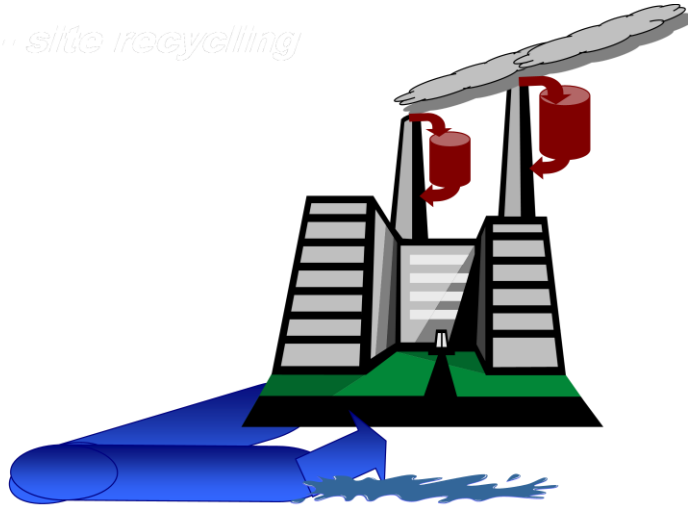
Signature

Details of Proof of payment of Programme fee (*RTGS / NEFT Details; Cheque, DD*):

**Payment Particulars**

- **ECS Payment Details:** Indian Overseas Bank, 70, Golf Link, New Delhi Branch; A/c No. 026501000009207, IFSC Code. IOBA0000265
- In case of ECS Payment, the payment details should be intimated accordingly along with UTR number
- DD/Cheque should be drawn in the name of NATIONAL PRODUCTIVITY COUNCIL payable at NEW DELHI
- Programme Fees per Participant plus GST to be paid in advance
- PAN No: AAATN0402F, GSTIN: 07AAATN0402F1Z8

*On-site recycling*



**National Productivity Council**  
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Government of India  
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