



National Productivity Council

**Training Programme
on
“In Situ Balancing & Alignment”**

PROGRAMME CODE: (NPC/TP/22- 23/92)

**12 – 14, December 2022
(@AIP, NPC Chennai)**



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

Unbalance and misalignment are the two major causes of machine vibration and failure. Studies have shown that 70 – 90% of the machinery failures are due to unbalance and misalignment. The forces created by unbalance and misalignment not only cause excessive vibrations leading to energy losses and excessive noises, but also result in premature failures of many components like bearings, couplings, belts, seals, shafts , etc.

A properly balanced and aligned machine will save a factory 40 - 50% on machine downtime, replacement of parts, inventory and energy consumption. It therefore becomes our responsibility to put maximum efforts towards aligning and balancing the machinery to have large payback in terms of extension of its operating life.

The participants can learn everything they need to know about Insitu Balancing & Alignment in our programme taught by knowledgeable & experienced experts.

3. LEARNING OBJECTIVES

This training program prepares participants to:

- educate the participants on the causes and consequences of unbalance and misalignment.
- discuss both the theoretical and practical aspects of balancing and alignment.
- demonstrate and train the participants on the scientific practices of balancing and alignment.

4. BROAD PROGRAMME COVERAGE

The following topics shall be covered during the training

- Causes of unbalance.
- Types of unbalance.
- Static balancing.
- Dynamic balancing.
- Balancing tolerance.
- Alignment & its influence.
- Stages of machine alignment.

- Soft foot analysis and correction.
- Methods of alignment.
- Alignment tolerance.
- Case studies.

5. METHODOLOGY

The training program would be participative in nature. The sessions would be based on lectures, conceptual deliberations, exercises/discussions and case studies.

6. PARTICIPANTS' PROFILE

This program is designed personnel from a wide variety of industries, varied skill levels and job titles. This program will be beneficial to: design engineers, maintenance technicians, maintenance engineers, maintenance managers, plant engineers & plant managers, operators, engineers from operations and anyone involved in identifying and correcting faults in rotating machinery.

7. FACULTY

The faculty for the training programme will comprise of senior NPC Experts & other renowned and experienced trainers from the industry and professional institutions.

8. PROGRAMME FEE & VENUE

Programme Code	NPC/ TP/ 22- 23/92	
Program Venue	National Productivity Council, Dr. Ambedkar Institute of Productivity, 6, Aavin Dairy Road, Ambattur Industrial Estate (North), Ambattur, Chennai – 600 050.	
Programme Fee	Residential Participants ₹ 22800 + 18% GST	Non-Residential Participants ₹ 18300 + 18% GST
For Residential Participants	Check – in at the Institute’s Guest House: From 4 p.m. onwards, on 11 th December 2022. Check – out from the Institute’s Guest House: 8.30 p.m. on 14 th December 2022.	

9. PAYMENT DETAILS

Programme fee inclusive of GST to be paid in advance and proof of payment to be attached along with application form.
<ul style="list-style-type: none"> • 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 3-5 participants and 15% discount of programme fee to organizations sponsoring more than 5 participants.**

10. 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
Tel: 011-24607319**

- **Last date for Receiving of nominations: 30th November 2022**

11. 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 & lodge 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 boarding 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

APPLICATION FORM FOR NOMINATIONS

Title of Programme: **“In- Situ Balancing and Alignment”**

Programme Code: **NPC/TP/22- 23/92**

Programme Duration: Three (3) days

Location: NPC, Chennai.

Details of Nominated Participants:

S. No	Name of the 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:

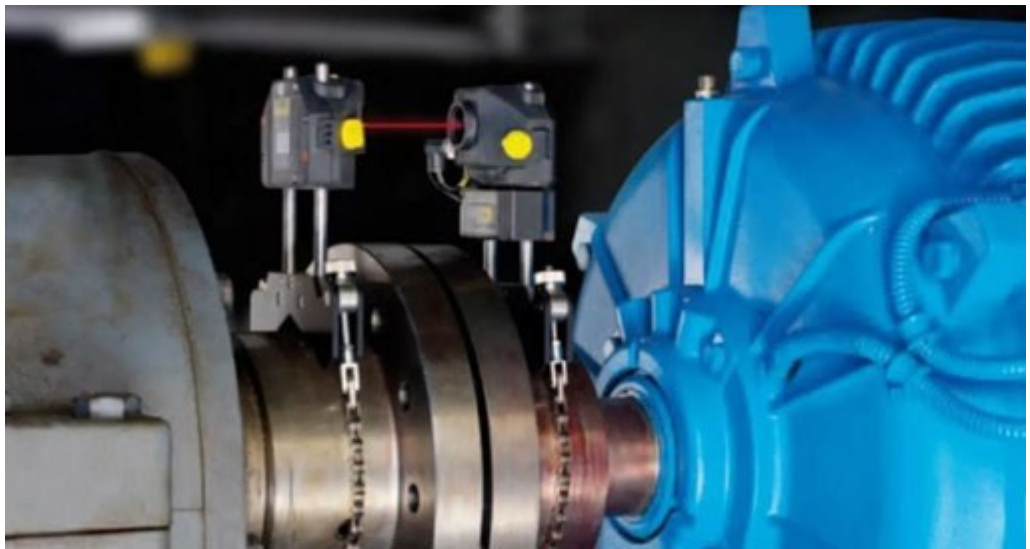
Signature

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

Programme on “In Situ Balancing & Alignment”



National Productivity Council
(Under Department for Promotion of Industry and Internal Trade)
Ministry of Commerce and Industry
Government of India
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