



No. 31001/22  
Dt. 15-11-2022

**Sub: 22-CP-05-GE-WSP-A: Workshop on IoT Applications in Livestock Management from 20-23 February 2022, Face-to-face, Bangkok, Thailand (Visit [www.npcindia.gov.in/NPC/User/InternationalServices](http://www.npcindia.gov.in/NPC/User/InternationalServices) for detailed Project Notification)**

Dear Sir,

We invite your kind attention to NPC [www.npcindia.gov.in/NPC/User/InternationalServices](http://www.npcindia.gov.in/NPC/User/InternationalServices) with regard to above Asian Productivity Organization (APO) project. The project notification and the APO bio data form are available on the above mentioned page and the same are also attached herewith. The duly filled in **single copy** of Performa enclosed (in excel form only) of the suitable officers for participation as per the para (**Qualifications for Participants**) of the project notification may kindly be forwarded to reach us latest by **1<sup>st</sup> December 2022**. In this regard, the following points may be noted.

- **Fees and Charges** An Application fees (NON-REFUNDABLE) of **Rs. 500** for MSME Sector, Trade Unions and NGO's and **Rs. 1000/-** for others is payable along with the nomination form, for each participant.

The requisite amount can be paid through a demand draft/cheque/ECS drawn in favour of National Productivity Council, New Delhi. In the regard, the bank account of NPC details is attached herewith. Kindly e-mail the details of the ECS/RTGS/NEFT payment made, **mentioning the name of applicant in remarks** to [mayank.verma@npcindia.gov.in](mailto:mayank.verma@npcindia.gov.in), [isg@npcindia.gov.in](mailto:isg@npcindia.gov.in), [rk.rawat@npcindia.gov.in](mailto:rk.rawat@npcindia.gov.in) Please note in the absence of application fee, the nomination will not be considered.

- **Nomination Procedure all nominations should be routed through proper channel and as per the attached APO bio data form.** The nominations received after the last date will not be considered. It is the responsibility of the candidates to complete all the official formalities required by their organizations/department for participating in the program. It is requested to send nominations by e-mail to [mayank.verma@npcindia.gov.in](mailto:mayank.verma@npcindia.gov.in), [isg@npcindia.gov.in](mailto:isg@npcindia.gov.in), [rk.rawat@npcindia.gov.in](mailto:rk.rawat@npcindia.gov.in) (application in prescribed excel format) and one hard copy by post along with the covering letter of the competent authority on company's letter head. All information pertaining to nominations will be treated as confidential and classified. The nominated officers may be invited as a faculty in programs on the relevant subjects organized by NPC.

We look forward to receiving of nominations from your esteemed organization.

Thanking you,

Yours faithfully,

-sd  
**(K.D. Bhardwaj)**  
**Director & Head (Int'l Serv.)**  
**for Director General**  
e-mail: [isg@npcindia.gov.in](mailto:isg@npcindia.gov.in)



## PROJECT NOTIFICATION

Ref. No.: 22-CP-05-GE-WSP-A-PN2200078-009

<b>Date of Issue</b>	15 November 2022
<b>Project Code</b>	22-CP-05-GE-WSP-A
<b>Title</b>	Workshop on IoT Applications in Livestock Management
<b>Timing and Duration</b>	20–23 February 2023 (four days)
<b>Venue and Hosting Country(ies)</b>	Bangkok, Thailand
<b>Modality</b>	Face-to-face
<b>Implementing Organization(s)</b>	Thailand Productivity Institute
<b>Participating Country(ies)</b>	All Member Countries
<b>Overseas Participants</b>	19
<b>Local Participants</b>	6
<b>Qualifications of Participants</b>	Policymakers and government officials, academics, and staff of public and industry organizations involved in advancing IoT applications in livestock management
<b>Nomination of Participants</b>	All nominations must be submitted through National Productivity Organizations of member countries
<b>Closing Date for Nominations</b>	20 December 2022

## 1. Objectives

- a. Share recent applications of IoT technologies in livestock production.
- b. Study the applications and benefits of IoT on advanced livestock farms.
- c. Discuss plans for promoting IoT applications in livestock farming in APO members.

## 2. Background

The UN FAO reported in 2019 that the global demand for livestock products was anticipated to double by 2050, most of which was expected in developing countries. The sector needs innovation to boost production with limited land and resources. In addition, the sector must achieve sustainability without causing irreparable environmental damage or exceeding global resources. According to the UN FAO, livestock-related greenhouse gas emissions was at 3.5 billion tons of CO<sub>2</sub> equivalent in 2018, representing two-thirds of all emissions from agriculture.

The adoption of IoT and associated digital technologies is a key enabler to achieve both productivity and sustainability. It assists precision livestock farming (PLF) by collecting information for taking actions in a timely, precise manner for individual animals, herds, or flocks as needed. Through IoT applications, farmers can significantly improve the way they manage livestock farming.

Under its Vision 2025, the APO supports enhancing livestock productivity through smart transformation initiatives. This workshop will discuss recent IoT applications in livestock operations including the concept of PLF and observing good practices of selected farms in Thailand. It will also discuss how the IoT and PLF could be adopted in other APO members.

## 3. Scope, Methodology, and Certificate of Attendance

The program comprises presentations by resource persons, group discussions, field visit(s), and other relevant learning methods. The indicative program schedule is below.

Day 1:

- Overview of the livestock industry (opportunities and challenges)
- Overview of IoT technologies and the concept of PLF

Day 2:

- IoT and PLF applications in poultry farming
- Field visit

Day 3:

- IoT and PLF applications in other livestock and aquaculture farming operations
- Field visit

Day 4:

- Group work and action plan presentation

The detailed program and list of resource persons will be provided a month prior to the program with announcement of the names of the selected participants.

The participants are required to attend all sessions. This full participation is a prerequisite for receiving the APO certificate of attendance.

## **4. Financial Arrangements**

### **4.1. To be met by the APO**

- a. All assignment costs of overseas resource persons and honorarium for up to two local resource persons.
- b. Airfare:
  - Workshop and Conference: Round-trip discounted economy-class international airfare by the most direct route between the international airport nearest to the participants' place of work and project venue.
  - Training Course and Observational Study Mission: Round-trip discounted economy-class international airfare by the most direct route between the international airport nearest to the participants' place of work and project venue for those from NPOs, SMEs, and public-sector and nonprofit organizations.
  - Arrangements for air tickets for participants will be made by a designated travel agent endorsed by NPOs.
- c. Accommodation and Per Diem Allowances:
  - Hotel accommodations and per diem allowances for overseas participants for up to five days at the pre-determined rates in host country.

### **4.2. To be met by participants**

- a. Participants from large, profit-making organizations attending training courses or observational study missions, except those from Bangladesh, Cambodia, Fiji, Lao PDR, Mongolia, and Nepal:
  - Round-trip international airfare between the international airport nearest to the participants' place of work and project venue.
  - Participating Country Expenses at USD200.00/person.
- b. For All Participants:
  - Travel insurance with a minimum coverage value of USD10,000.00 to cover accident, illness, hospitalization, death, and specific expenses related to COVID-19 such as medical treatment, extension of stay due to quarantine, and flight rescheduling/cancellation, if applicable. Participants are required to submit copies of insurance certificates to the APO Secretariat prior to departure.
  - All expenses related to PCR testing and visa fees.
  - Any expenses incurred for stopovers on the way to and from the project venue as well as for extra stay at the project venue before and/or after the official project period because of early arrival or late departure, for example, due to either limited available flights or any other reason.
  - Any cancellation charges for airfare and hotel accommodations arising from withdrawals after letters of acceptance have been issued by the APO.

### **4.3. To be met by the implementing organization**

- a. Transportation expenses of participants between the airport and hotel designated for the project.
- b. All other local implementation costs.

## 5. Implementing Procedures

Please refer to the implementation procedures for APO multicountry projects circulated with this document.



Dr. Indra Pradana Singawinata  
Secretary-General