

## TWO WEEKS INTERNATIONAL RESIDENTIAL TRAINING PROGRAMME ON ADVANCED COURSE IN ARTIFICIAL INTELLIGENCE (AI) AND MACHINE LEARNING (ML) IN PACKAGING INDUSTRY

Under Indian Technical and Economic Cooperation (ITEC)  
Ministry of External Affairs (MEA), Govt. of India

### Tentative Course Content

| Time                | Topic   |
|---------------------|---|
| <b>Day 1</b>        |   |
| 10:00 am - 11:00 am | Inauguration  |
| 11:00 am - 11:30 am | Tea/ Coffee   |
| 11:30 am - 01:00 pm | Introduction on Packaging Technology and Packaging Materials      |
| 01:00 pm - 2:00 pm  | Lunch   |
| 2:00 pm- 3:30 pm    | Principles and Concepts of Packaging Technology                   |
| 3:30 pm- 4:00 pm    | Tea/Coffee  |
| 4:00 pm - 5:00 pm   | Introduction to AI and ML in Packaging                            |
| 5:00 pm - 6:00 pm   | Importance of Design tools in Packaging Designing                 |
| <b>Day 2</b>        |   |
| 10:00 am - 11:30 am | Paper - Raw Materials, Manufacturing Processes and Types of Paper |
| 11:30 am - 12:00 am | Tea/ Coffee   |
| 12:00 pm - 01:30 pm | Plastics - Raw Materials and Types of Plastic in Packaging        |
| 01:30 pm - 2:30 pm  | Lunch   |
| 2:30 pm- 4:00 pm    | AI in Automating Packaging Production Processes                   |
| 4:00 pm- 4:30 pm    | Tea/ Coffee   |
| 4:30 pm - 6:00 pm   | CFB Box – Raw Materials, Manufacturing Processes                  |
| <b>Day 3</b>        |   |
| 10:00 am - 11:30 am | Manufacturing Processes, Structure and Property of Plastics       |
| 11:30 am - 12:00 am | Tea/ Coffee   |
| 12:00 am - 01:30 pm | Anti-Counterfeiting AI Approaches in Packaging                    |
| 01:30 pm - 2:30 pm  | Lunch   |
| 2:30 pm- 4:00 pm    | Robotics in Packaging Assembly and Quality Control                |
| 4:00 pm- 4:30 pm    | Tea/ Coffee   |
| 4:30 pm - 6:00 pm   | Sustainable Packaging Materials and AI tools                      |
| <b>Day 4</b>        |   |
|                     | Factory Visit   |
| <b>Day 5</b>        |   |
| 10:00 am - 11:30 am | Smart Packaging Technologies                                      |
| 11:30 am - 12:00 am | Tea/ Coffee   |

## TWO WEEKS INTERNATIONAL RESIDENTIAL TRAINING PROGRAMME ON ADVANCED COURSE IN ARTIFICIAL INTELLIGENCE (AI) AND MACHINE LEARNING (ML) IN PACKAGING INDUSTRY

Under Indian Technical and Economic Cooperation (ITEC)  
Ministry of External Affairs (MEA), Govt. of India

### Tentative Course Content

|                     |   |
|---------------------|---|
| 12:00 am - 01:30 pm | Various Films and Application of Laminates  |
| 01:30 pm - 2:30 pm  | Lunch   |
| 2:30 pm- 4:00 pm    | Advances in Packaging Machineries   |
| 4:00 pm- 4:30 pm    | Tea/ Coffee   |
| 4:30 pm - 6:00 pm   | Glass Containers – Raw Materials, Manufacturing Process and Application                 |
| <b>Day 6</b>        |   |
| 10:00 am - 11:30 am | Different Printing Processes and Recent Advances  |
| 11:30 am - 12:00 am | Tea/ Coffee   |
| 12:00 am - 01:30 pm | <b>Laboratory Visit</b> - Practical on Testing of CFB Box, Paper & Composite Containers |
| 01:30 pm - 2:30 pm  | Lunch   |
| 2:30 pm- 4:00 pm    | Cushioning Materials and Designing of Packaging   |
| 4:00 pm- 4:30 pm    | Tea/ Coffee   |
| 4:30 pm - 6:00 pm   | AI based Packaging Technologies for Tracking and Tracing                                |
| <b>Day 7</b>        |   |
| 10:00 am - 11:30 am | Label & Labelling Processes   |
| 11:30 am - 12:00 am | Tea/ Coffee   |
| 12:00 pm - 01:30 pm | Multilayer Films in Packaging and their properties                                      |
| 01:30 pm - 2:30 pm  | Lunch   |
| 2:30 pm- 4:00 pm    | Packaging Standards and Regulations for AI Applications                                 |
| 4:00 pm- 4:30 pm    | Tea/ Coffee   |
| 4:30 pm - 6:00 pm   | End of line Solution and EPR  |
| <b>Day 8</b>        |   |
|                     | Industrial Visit  |
| <b>Day 9</b>        |   |
| 10:00 am - 11:30 am | Application of AI for Transit   |
| 11:30 am - 12:00 am | Tea/ Coffee   |
| 12:00 am - 01:30 pm | Testing and Evaluation of Transport Packaging   |
| 01:30 pm - 2:30 pm  | Lunch   |
| 2:30 pm- 4:00 pm    | Visit to Transport Laboratory at IIP Delhi  |
| 4:00 pm- 4:30 pm    | Tea/ Coffee   |
| 4:30 pm - 6:00 pm   | Packaging Supply Chain Optimization   |
| <b>Day 10</b>       |   |



**TWO WEEKS INTERNATIONAL RESIDENTIAL TRAINING PROGRAMME ON  
ADVANCED COURSE IN ARTIFICIAL INTELLIGENCE (AI) AND MACHINE LEARNING  
(ML) IN PACKAGING INDUSTRY**

Under Indian Technical and Economic Cooperation (ITEC)  
Ministry of External Affairs (MEA), Govt. of India

**Tentative Course Content**

|                     |                     |
|---------------------|---------------------|
| 10:00 am - 11:30 am | Quiz                |
| 11:30 am - 12:00 am | Tea/ Coffee         |
| 12:00 pm onwards    | Valedictory Session |