

No.: 10\_2025 /KH-DDT

Ho Chi Minh City, February 20, 2025

## **PLAN FOR ORGANIZING THE PLC PROGRAMMING CONTEST**

### **I. OBJECTIVES AND REQUIREMENTS**

#### **1. Objectives**

- Provide essential knowledge and skills for designing and programming systems integrating LabVIEW with Arduino and PLC.
- Create an environment for connection and academic exchange among students of different cohorts, majors, and specializations.
- Enhance professional skills, strengthen specialized knowledge, working skills, and practical experience.

#### **2. Requirements**

- Students enhance professional skills, gain solid specialized knowledge, and improve teamwork skills.
- Promote an active learning and research atmosphere across the Department, Faculty, and University.

### **II. ORGANIZATION AND IMPLEMENTATION**

#### **1. Time And Location**

1. Time: November – December 2023
2. Location: Ho Chi Minh City University of Industry and Trade,  
Address: 140 Le Trong Tan, Tay Thanh Ward, Tan Phu District, Ho Chi Minh City.

#### **2. Participants:**

- Eligible participants: All students currently studying at Ho Chi Minh City University of Industry and Trade.
- Estimated number of participants: 80 students.

#### **3. Organizational Content:**

##### **1. Implementation Schedule:**

- From 22/03/2025 to 31/03/2025: disseminate information to students of all classes.
- From 01/03/2025 to 05/04/2025: collect registration lists.
- 06/04/2025: finalize the list of registered participants.
- 16/05/2025: opening ceremony and preliminary round.

- 23/05/2025: challenge round.
  - 30/05/2025: final round, closing ceremony, and awarding.
2. Implementation Details:

#### **+ Round 1: Preliminary Round – on 16/05/2025**

- Contestants will randomly draw 1 out of 10 exam topics provided in advance by the organizers (preliminary round topics will be announced on 09/05/2025).
- The preliminary round involves programming I/O control using OMRON PLC.
- Results will be evaluated based on the completion time of the program.
- Only results completed within the allowed time will be accepted (60 minutes).
- The top 20 contestants with the best completion times will advance to the Challenge Round (20 contestants with the shortest programming time).

#### **+ Round 2: Challenge Round – on 23/05/2025**

- Contestants will randomly draw 1 out of 5 exam topics provided in advance (challenge round topics will be announced on 16/05/2025. In addition to PLC programming, this round includes system operation control and monitoring).
- Contestants will randomly draw their workstation positions in the PLC lab.
- The challenge round will involve programming control using OMRON PLC.
- Results will be evaluated based on the completion time of the program.
- Only results completed within the allowed time will be accepted (90 minutes).
- The top 5 contestants with the shortest completion times will advance to the Final Round.

#### **+ Round 3: Final Round – on 30/05/2025**

Contestants will randomly draw 1 out of 5 exam topics provided in advance (final round topics will be announced on 23/05/2025. In addition to PLC programming, this round includes system operation control, system monitoring, and inter-PLC communication programming).

Contestants will randomly draw their workstation positions in the PLC lab.

The final round will involve programming control using OMRON PLC.

- Only results completed within the allowed time will be accepted (120 minutes).
- Results will be evaluated based on the completion time of the program.

Before each competition round, the organizing committee will conduct training sessions for contestants on all content included in the exam. The training schedule

will be announced specifically to all registered participants (PLC programming, control interface design, communication between PLCs, etc.).

### **3. Violation Handling:**

- Cancellation of exam results and immediate termination of the contestant's test if causing a short circuit to the system.
- Cancellation of exam results if the contestant communicates with others during the competition time.
- Contestant bringing unauthorized materials or cheating during the competition.
- Participants who intentionally provoke conflict or behave inappropriately in violation of school conduct will be disqualified from the competition.

### **4. Assignment of Responsibilities:**

#### **a. Steering Committee:**

1. Mr. Lê Thành Tới – Head of Committee
2. Mr. Nguyễn Phú Công – Deputy Head

#### **b. Organizing Committee:**

1. Mr. Lê Thành Tới – Head of Committee
2. Mr. Nguyễn Phú Công – Deputy Head
3. Mr. Trần Văn Hải – Member
4. Mr. Võ Song Vệ – Member
5. Mr. Trần Văn Hải – Member
6. Ms. Võ Thị Lệ Phước – Member
7. Mr. Trần Thành Đạt – Member
8. Mr. Bùi Quang Huy – Member
9. Ms. Phạm Thị Xuân Hoa – Member
10. Mr. Trần Văn Hải – Member

**STUDENT AFFAIRS OFFICE**

**DEAN OF FACULTY**

**ON BEHALF  
OF THE ORGANIZING COMMITTEE**

**LÊ THÀNH TỚI**