Republic of the Philippines
Department of Education
REGION I
SCHOOLS DIVISION OF THE CITY OF BATAC

Advisory No. 062, s. 2025
19 MAR 2025

In compliance with DepEd Order (DO) No. 8, s. 2013
this advisory is issued not for endorsement per DO 28, s. 2001,
but only for the information of DepEd officials,
personnel/staff, as well as the concerned public.
(Visit www.deped.gov.ph)

UNIVERSIDAD DE DAGUPAN (UDD) MOBILE ROBOTICS AND BRIDGE BUILDING COMPETITION

The University de Dagupan (UDD) will be celebrating its Foundation Anniversary on March 24-25, 2025 at Justin Hall and B, Bonuan Binloc, Dagupan City. As part of the celebration, there will be a Mobile Robotics and Bridge Building Competition for senior high school students.

Relative to this, all interested Grade 12- STEM senior high school learners from the public and private secondary schools of the Schools Division of the City of Batac are encouraged to participate in the activity. The participants in each of the events are five (5) Grade 12 learners and one (1) adviser. Registration is free and the deadline is on March 20, 2025.

Attached herein are Advisory No. 33, s. 2025 and contest guidelines for further reference.

For information.

CID-GBL/UDD Mobile Robotics and Bridge Building Competition
2504643/5017/March 19, 2025

Republic of the Philippines
Department of Education
REGION I

Advisory No. 33, s. 2025

MAR 19 2025

In compliance with DepEd Order (D.O) No. 8, s. 2013
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UNIVERSIDAD DE DAGUPAN (UDD) MOBILE ROBOTICS AND BRIDGE BUILDING COMPETITION

The Universidad de Dagupan (UDD) propels its mission to create a responsive community attuned to the dynamic challenges of the modern world. Relative to this, UDD will be celebrating its Foundation Anniversary on March 24-25, 2025 at Justin Hall A and B, Bonuan Binloc, Dagupan City.

The event will feature the Mobile Robotics and Bridge Building Competition for Senior High School students. The participants in each of the events are five (5) Grade 12 Senior High School-STEM strand students and one adviser. Further, the registration is free and the deadline is on March 20, 2025.

Personnel and staff of the Department of Education from the regional and schools division offices, including public and private secondary schools are invited to participate in the activity on a voluntary basis.

Participation of public and private schools shall be subject to the no-disruption-of-classes policy stipulated in DepEd Order No. 9, s. 2005 entitled Instituting Measures to Increase Engaged Time-On-Task and Ensuring Compliance Therewith.

For more information, please contact:

ENGR. RAQUEL ALMENDARES
ENGR. RONALD ALLAN BANDONG
ENGR. RODERICK CABANA
Advisers:Mobile Robotics and Bridge Building Competition
Mobile Phone No.: 0945-491-0421; 0907-411-4173
Email address: info@cdd.edu.ph
Facebook: www.cdd.edu.ph

CLMD/rap/ADV_UDDMobileRoboticsandBridgeBuildingCompetition
March 18, 2025

UNIVERSIDAD DE DAGUPAN
(Formerly COLEGIO DE DAGUPAN)

DEPARTMENT OF EDUCATION
RECEIVED
RECORDS SECTION REGIONAL OFFICE NO. 1
MAR 14 2025
BY: TIME:

March 13, 2025

Dr. Tolentino G. Aquino, CESO III
Director IV
DepEd Region 1
City of San Fernando, La Union

Sir,

Greetings of peace and good tidings!

Universidad de Dagupan will be celebrating its Foundation Anniversary this year 2025. On this celebration, we would like to invite Senior High Schools both private and public in the Province of Pangasinan and even in the Region to join us by sending contestants / participants in some events intended for Senior High School Students. These events are **UDD Mobile Robotics and Bridge Building Competition** which will be done on March 24-25, 2025 at Justin Hall A & B, Bonuan Binloc, Dagupan City. May we seek therefore your endorsement on the said events and be attended by Senior High Schools within the Region.

Attached herewith are letter to schools, guidelines and registration forms for the said events. Thank you and we look forward to your favorable response. More power and Godspeed.

Sincerely yours,

Engr. Ronald Allan Bandong
Engr. Roderick Cabaña
Event Organizer

Noted by:

Jose Jay R. De Vera, ECE, Mengg-ECE, Ph.D
Dean – School of Engineering

Approved by:

Sir Jann Alfred A. Quinto, MSIB
Chief Operating Officer

Arellano Street, Dagupan City, Philippines 2400
(075) 522-2405 | 522-0143
info@cdd.edu.ph
www.cdd.edu.ph

UNIVERSIDAD DE DAGUPAN
(Formerly COLEGIO DE DAGUPAN)

March 10, 2025

The Principal

Ma'am / Sir,

Greetings from Universidad de Dagupan!

We are pleased to invite your school to the **Mobile Robotics and Bridge Building Competition** for **Senior High School students**, hosted by the **School of Engineering** on **March 24–25, 2025**. This event aims to provide hands-on experience in **robotics, programming, and structural engineering**, fostering STEM education through practical applications.

The schedule is as follows:

March 24-25, 2025	Robotics Seminar and Competition
March 25, 2025	Bridge Building Competition

We invite **five (5) students and one adviser** for mobile robotics competition and **five (5) students and one adviser** for bridge building competition from your school to participate in the said events. **Registration is free**, and **cash prizes** await the winners. The **registration deadline is on March 20, 2025**. Attached herein is the registration form for attendees.
For more information and inquiries, please contact **0945-491-0421** or **0907-411-4173**. We look forward to your participation!

Very truly yours,

Engr. Raquel Almendares
Engr. Ronald Allan Bandong
Engr. Roderick Cabaña
Advisers – Mobile Robotics and Bridge Building Competition

Noted by:

Jose Jay R. De Vera, ECE, MEngg-ECE, Ph.D
Dean – School of Engineering

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SCHOOL OF ENGINEERING

BRIDGE BUILDING COMPETITION 2025

March 25, 2025

UNIVERSIDAD DE DAGUPAN
Arellano St., Dagupan City
522-2405 • www.cdd.edu.ph
SCHOOL OF ENGINEERING

GUIDELINES

A. EVENT OVERVIEW

As Universidad de Dagupan's Philosophy of Education propels its mission towards personal fulfilment and community uplift, the Philosophy, Vision, Mission, and Objectives (PVMO) tirelessly works to create a responsive community attuned to the dynamic challenges of the modern world. In pursuit of this vision, we present an opportunity for the aspiring engineers among the Senior high school students

B. QUALIFICATION

1. *The team must be composed of 5 students and 1 coach.*
2. All student members of the team must be Grade 12 Senior High School students under the Science, Technology, Engineering, and Mathematics (STEM) strand. A school ID must be presented for validation.

C. ONLINE REGISTRATION

Click the link below or scan the QR code to register

SCAN ME

1. https://forms.gle/vRZ6Qx4kVWNsjdyL8
2. A confirmation email will be sent to your team.
3. There will be limited slots for the competition.
4. Deadline for registration will be on **March 20, 2025.**
5. For any inquiries regarding the event, please message us at 09074114173 or through our Facebook page: PICE-Universidad de Dagupan Student Chapter with the following format:

   UdDBBC2025<space>message

D. COMPETITION PROPER

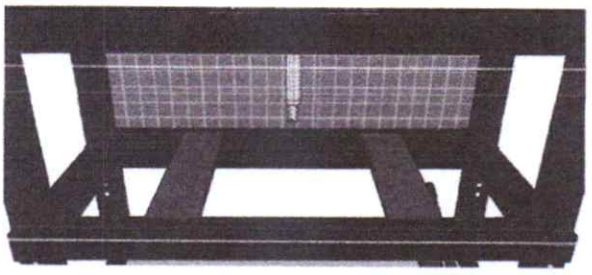
1. The competition will be held on March 25, 2025 at Justin Hall, Leisure Coast Resort, Bonuan Binloc, Dagupan City.
2. Registration will begin at **7:00 AM.**
3. All teams must attend the morning lecture and the Orientation in Justin Hall, Leisure Coast Resort, Bonuan Binloc, Dagupan City on March 25, 2025 (8:00 AM – 11:00 AM)
4. A team representative must proceed to the registration table to collect their bridge supplies at exactly 12:00 NN
   - **250 pieces popsicle sticks**
   - **100 pieces rubber bands**
   - **5 sheets of bond paper (A4 size)**
   - **3 pencils**
   - **1 ruler**
   - **2 scissors**
5. The competition shall consist of three (3) levels: Level 1 - Construction, Level 2 - Testing, and Level 3 - Scoring.
6. Participants are strictly prohibited from bringing electronic devices such as cameras,

mobile phones, tablets, or any other communication devices to the working table. Teams must surrender their electronic devices to their coaches in the designated area.

7. During the competition, no modifications or additional materials other than those provided by the school shall be utilized.

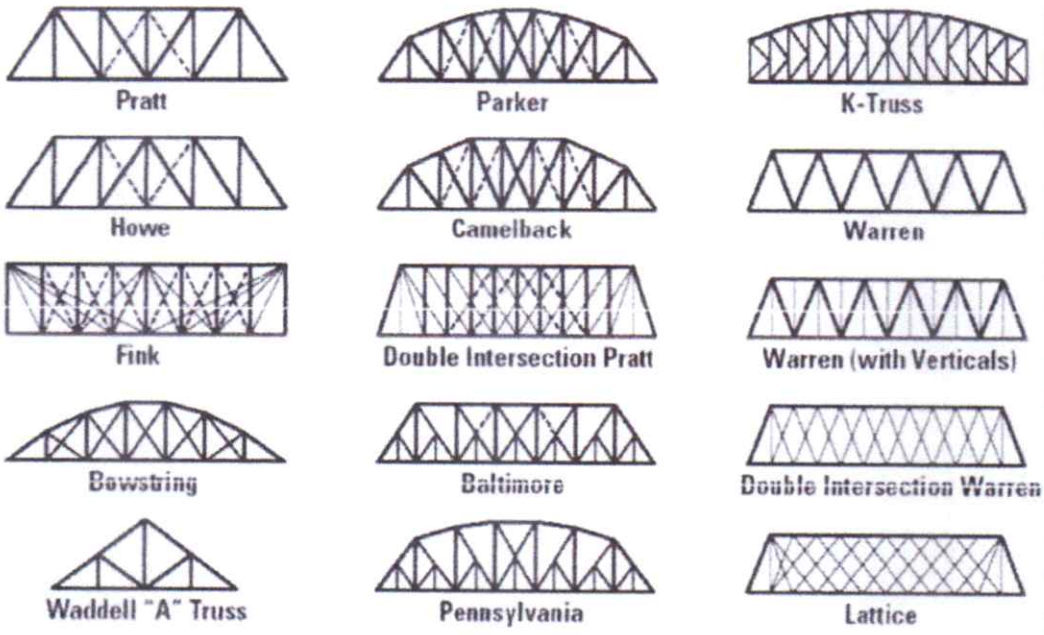
LEVEL 1: CONSTRUCTION

1. Each team will have its own working table for bridge construction. Only student members are allowed at the working table.
2. It is recommended that the bridge be at least 50 cm long to ensure that the bridge does not fall through the 40 cm opening of the test assembly when the load is applied. Refer to the sample illustration shown below.



3. The bridge shall comply with the following dimensions.
   - **Height: 8 -11 cm**
   - **Width: 8 -10 cm**
   - **Length: 50 - 60 cm**

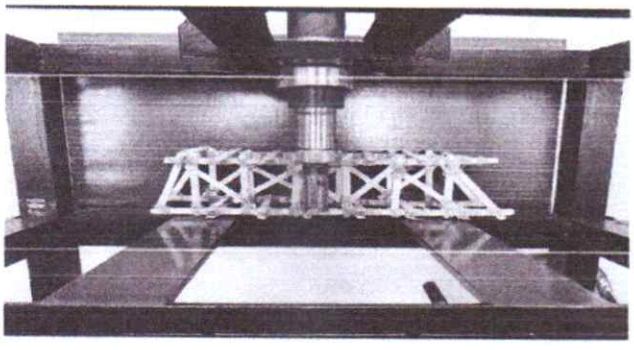
   If the bridge does not meet the specified measurements, the team will be disqualified.
   NOTE: All excess materials attached to the bridge such as rubber bands and uncut popsicle sticks will be counted to the total measurement.
4. Teams are not allowed to bring a model or reference as a basis for bridge construction. Failure to comply will result in *automatic disqualification*.
5. Two flags will be given to each team which corresponds different purposes as written below:
   - **Green Flag: Must be raised if the construction of bridge is completed.**
   - **Red Flag: Must be raised if first aid is needed.**
6. The construction must be completed within a maximum of three (3) hours. However, teams that finish before the allotted time may raise their green flags.
7. Once the bridge construction is completed, a team representative must raise the green flag to notify the event organizers and have the construction time recorded. The representative must then bring the completed bridge to the holding area.
8. All unused supplies must be surrendered immediately after the green flag is raised or when the allotted 3-hour time is fully consumed. The remaining number of popsicles sticks and rubber bands will be recorded for additional points.
9. Only the provided popsicle sticks and rubber bands may be used as parts of the bridge. Pencils, rulers, bond paper, and other provided materials are for planning and marking only.
10. Attached below are the types of bridge trusses that participants may build.



NOTE: Broken lines on the figure means reverse pattern of the bridge.

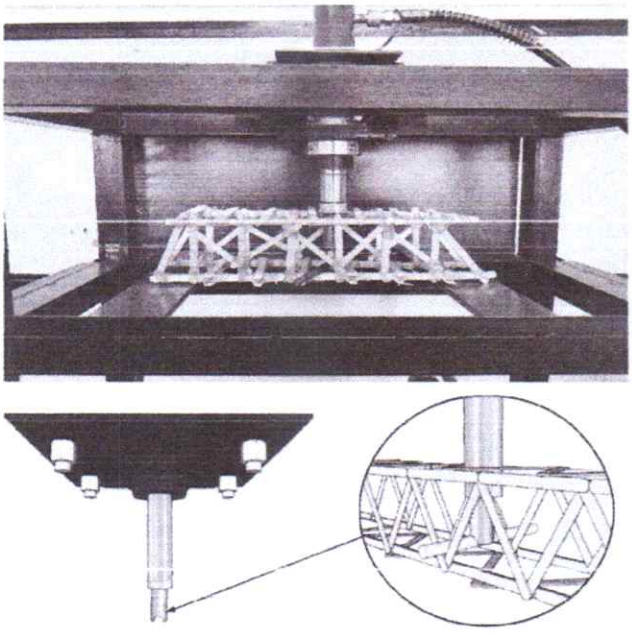
LEVEL 2: TESTING

1. A team representative will be assigned to the testing phase, along with three (3) PICE members.
2. Bridges will be tested one at a time.
3. The other team members will be given a red flag to raise if they have any concerns regarding the mechanics, testing, or violations.
4. Position the bridge model on the adjustable support, ensuring it is centered and secure.
5. Align the truss bridge model with the grid board at the background. Ensure proper alignment for accurate measurements.



6. Move the aligned bridge model to the hydraulic testing apparatus, ensuring it is securely

placed and ready for testing.



7. Any concerns regarding testing, violations, or mechanics must be raised before the next bridge is tested. Only team members may approach the Bridge Building Competition Committee Heads by raising the red flag.
8. PICE-UdD reserves the right to alter, amend, or modify the rules and regulations, in whole or in part, at their discretion, as long as they remain applicable. All involved parties will be notified immediately before any changes are implemented.
9. The event organizers will not be responsible for any lost or misplaced items during the event.
10. The organizers of the event are not liable for any injuries received outside of their services.

LEVEL 3: SCORING

1. The Scoring Level is composed of three (3) parts as stated below.

SCORING CRITERIA	
Bridge Strength	_____Points
Unused Materials	_____Points
Construction Time	_____Points
TOTAL:	_____Points

2. Bridge Strength will be based on the total weight of the bridge before Testing level divided by the total loads carried by the bridge.

$$\text{Bridge Strength} = \frac{\text{Bridge Weight}}{\text{Ksi}}$$

3. For the point value of each unused popsicle stick and rubber band, the following point system will be applied.

POINT VALUE FOR EVERY UNUSED SUPPLIES		
Popsicle stick	1 piece	0.2 point
Rubber band	1 piece	0.1 point

4. The maximum construction time is three hours. Teams that complete their construction before the time limit will receive additional points, as outlined below.

INTERVAL (hour: minute)	EXTRA POINTS
0:00 - 1:00	5 points
1:01 - 1:30	3 points
1:31 - 2:20	2 points
2:21 - 2:55	1 point
2:56 - 3:00	No extra points

5. The team with the most total points will be the winner.

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SCHOOL OF ENGINEERING

E. AWARDS AND CERTIFICATES

1. All participants will receive a certificate of participation.
2. Certificates will be provided for each participating school.
3. Participants must complete the Evaluation Form to receive their certificates.
4. The winning team will receive an additional certificate along with their corresponding cash prize, as listed below.

	CASH PRIZE
Champion	PHP 5,000
1st Runner-up	PHP 3,000
2nd Runner-up	PHP 2,000

5. The assigned team representative may claim the certificates at the registration table.
6. For any certificate concerns, please approach any of our Event Organizers for assistance with corrections.

NOTE: Unclaimed certificates will not be sent via mail, fax, online transfer, or any other means.

Engr. Raquel Almendares
Adviser- Bridge Building Competition

Universidad de Dagupan
Mobile Robotics Competition 2025
March 24-25, 2025 8:00 AM – 5:00 PM
Leisure Coast Resort, Bonuan Binloc Dagupan City

1. Objectives

1.1 To test the ability of mobile robots (mobots) to follow a pre-defined track efficiently.
1.2 To promote knowledge of sensors, programming, and motor control among participants.
1.3 To encourage problem-solving, teamwork, and innovation in robotics.

2. Competition Setup

2.1 The track consists of a continuous black line on a white surface forming curves, intersections, and possible obstacles.
2.2The track may include straight paths, sharp turns, that test the robot adaptability.
2.3The width of the line is 20mm (recommended).

3. Eligibility & Team Composition

3.1 Open to Grade 12 Senior High School-STEM Strand students interested in robotics.
3.2 Each team can have 5 members and 1 Coach.
3.3 Each must bring their own laptop and extension.

4. Robot Specifications

4.1 The mobile robots will be provided by Universidad de Dagupan.

5. Competition Rules

5.1 Each team will have (1) round. Each round will be consisting of three runs.
5.2 If the mobile robots leaves the track, it is considered as 1 run, or physically assisted by any team members will be considered as 1 run.
5.3 Teams are encouraged to test their Mobile Robots before the official run.
5.4 Judges' decisions are final and irrevocable.
5.5 Participants must adhere to fair play and sportsmanship throughout the event.

6. Starting & Running the Robot

6.1 The mobile robot must be placed behind the starting line.
6.2 Once the signal is given, the robot must be release and start moving autonomously.
6.3 If the robot fails to start within 3 seconds, the team may request a restart (max 1 restarts per round and penalty of +10 seconds)

7. Track Completion & Scoring

7.1 The mobot must stay on the line at all times.
7.2 If a robot completely leaves the track, a reset will be done. Must re-start from the starting line (with a time penalty = +5 seconds per reset and max of 3 resets).

8. Scoring System

8.1 Base Score: Time taken to complete the track.
Penalties:
+5 seconds: leaves the track
+10 seconds: Manual reset or re-start
8.2 Disqualification: If a robot fails to complete the track after (3) runs.

9. Awards & Recognition

9.1 Champion: Fastest time with minimal penalties.
9.2 1st Runner-up & 2nd Runner-up: Next best performers.

10. Awards and Recognition

Champion	Certificate + 5000 Prize
1st Runner-Up	Certificate + 3000 Prize
2nd Runner-Up	Certificate + 2000 Prize

Engr. Ronald Allan Bandong

Engr. Roderick Cabaña

Advisers – Mobile Robotics and Bridge Building Competition

UNIVERSIDAD DE DAGUPAN
Arellano St., Dagupan
Universidad de Dagupan Mobile Robotics and Bridge Building Competition
March 24–25, 2025
8:00 am-5:00 pm
Justin Hall A & B, Leisure coast Resort, Bonuan, Binloc. Dagupan City

REGISTRATION FORM

School: _____
Address: _____

Mobile Robotics Competition Contestants:
1.
2.
3.
4.
5.
ADVISER: _____
Contact Number: _____

Bridge Making Competition Contestant:
1.
2.
3.
4.
5.
ADVISER: _____
Contact Number: _____

Certified by:

_____
School/ Principal / Head
(Signature over Printed Name)

Send this to:

Ronald allan Bandong
FB: allanbfb bandong
Gmail: rgbandong@cdd.edu.ph
Cp#: 0945-491-0421

Engr. Raquel Almendares
FB:
https://www.facebook.com/ajinalmndrs
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