



**1st YILDIRIM BRIGDE DESIGN and
MODELLING COMPETITION**

ACK | AYHANCAN
KONSEPT



NUH'UN
ankara
M A K A R N A S I

1. Vision and Objective of the Competition

1st Yildirim Bridge Design and Modelling Competition, a famous international activity, is organized by The Structure Community in Ankara Yildirim Beyazit University (AYBU). The competition organized for the first time in AYBU, will be developed every year with your participation. The contest held to encourage the participants to develop imaginative and practical skills and to have fun. **For this year, participants will be presented in the competition as a team with model bridges, that are made of spaghetti as a construction material.**

The contest gives to the participants the chance to develop:

- Self-awareness
- Planned study habits
- Effective planning of free time
- Being an entrepreneur and able to do it successfully
- Ability to comply with new situations and environments
- Being respectful of individual differences; to tolerate different opinions, thoughts, beliefs, understandings and cultural values
- Taking responsibility
- Develop and implement qualified projects either individually or in partnership with others
- It is possible to monitor the application skills in a systematic and practical manner.

This competition, which will be organized under the theme of "**Engineering between Theory and Practice**", will be organized in the best way for the participants to develop themselves and to be a good memory of their student life.

2. The Topic of the Competition

The 1st Yildirim Bridge Design and Modelling Competition is involved in the design of bridges, which students' teams will make from spaghetti pasta later, it is a contest to be evaluated in two stages in terms of durability and aesthetics.

3. Terms of Participation

- The competition will be held on 24-27 April 2018.
- All teams wishing to participate in the competition must pre-register. The deadline for application for pre-registration is March 23, 2018, and must submit their application to the email address of the AYBU Structure Community by this date. (aybuyapi@gmail.com)
- Any undergraduate student is eligible to participate in the competition without looking over his field of study.
- Each team must be composed of at least 2 and at most 4 students. The members of the teams must be from the same university.
- Each team should chose a name, which must be selected in technical terms. Changes in team names after application are not possible.
- There is no team limit for universities.
- Teams can reach us via email for all questions and problems regarding registration, project submission and competition.
- Projects design plans will only be delivered via e-mail.
- The number of teams to participate in the competition is determined to be maximum 20 except for our university. If the participation exceeds this number, pre-selection will be done. This pre-screening will be done by the jury according to the design and project file. The teams that pass the preliminary round will be announced on Monday, April 6, 2018 at the latest.
- Participation in the 1st Yildirim Bridge Design and Modelling Competition is free.

4. Required Documents for Pre-registration

- All students who will participate in the competition must pre-register with group names in teams.
- Requirements for pre-registration;
 - i) **Team name**
 - ii) **Team members' names**
 - iii) **Student certificate**
 - iv) **Email addresses**
 - v) **Telephone Numbers**

These documents must be in pdf or Word document format.

- The competition teams will have pre-registered by sending the following information to the e-mail address "aybuyapi@gmail.com" with the following information by Friday, March 23, 2018 (hour).

5. Competition

- The competition will take place in two phases;

Stage 1:

- The projects participating in the preliminary process will be evaluated by the competition delegation based on certain criteria. Accepted projects teams will be informed with an email.
- AutoCAD detailed drawings should be sent by March 30, 2018 at the latest by specifying the design and dimensions of the bridge. If the drawing of the bridge is 2D, it should contain at least 3 views (Top view, left / right view, front / back view).

- The teams that are entitled to participate in the second phase will be announced within 1 week on the AYBÜ Civil Engineering page and the social media accounts of the AYBU Structure Community. The eliminations will be made by the juries.

Stage 2:

- Qualified designs from the first stage will be constructed in this stage. Using the facilities of AYBU, the teams will build their designed bridges in the Engineering faculty designated spaces, on the predefined hours on Thursday 26 and Friday 27 of April 2018.
- Total model construction time will be 7 hours.

6. Material Supply

The teams qualified to participate in the 2nd stage of the competition will be given 3 packages of spaghetti pasta (3x500 gr) by AYBU Structure Society sponsored by Nuh'un Ankara Makarnasi.

Materials allowed in model building;

-3 Packet Noah's Ankara Makarnasi (Spaghetti pasta)

-Wood Glue (White Glue)

-Bedplate for cutting

-Cutters

In jury evaluating process, an extra 1 packet of spaghetti pasta could be given to the designs if it is required.

Competitors may bring material for themselves during the competition. (For example, plastic clamps for temporary fixing.) However, at the end of the competition, teams with a different material than the materials indicated on the model will receive penalty points.

The competitors can optionally paint their bridges.

7. Evaluation and Grading:

Spaghetti bridges prepared by the participants will be evaluated by juries according to carrying capacities, aesthetics and team work.

a) The carrying capacities of the bridges will be evaluated out of **(60 points)** as :

Structural Yield=Load carried by the bridge/Own weight of the bridge. In the event of damage, breakage of the node, or complex migration, the bridge will lose points.

b) **(25points)** are for the aesthetic point of view, equilibrium, elegance and authenticity measurements will be taken into consideration. The fact that bridge is different from the others and the originality of the design will give a superiority in scoring

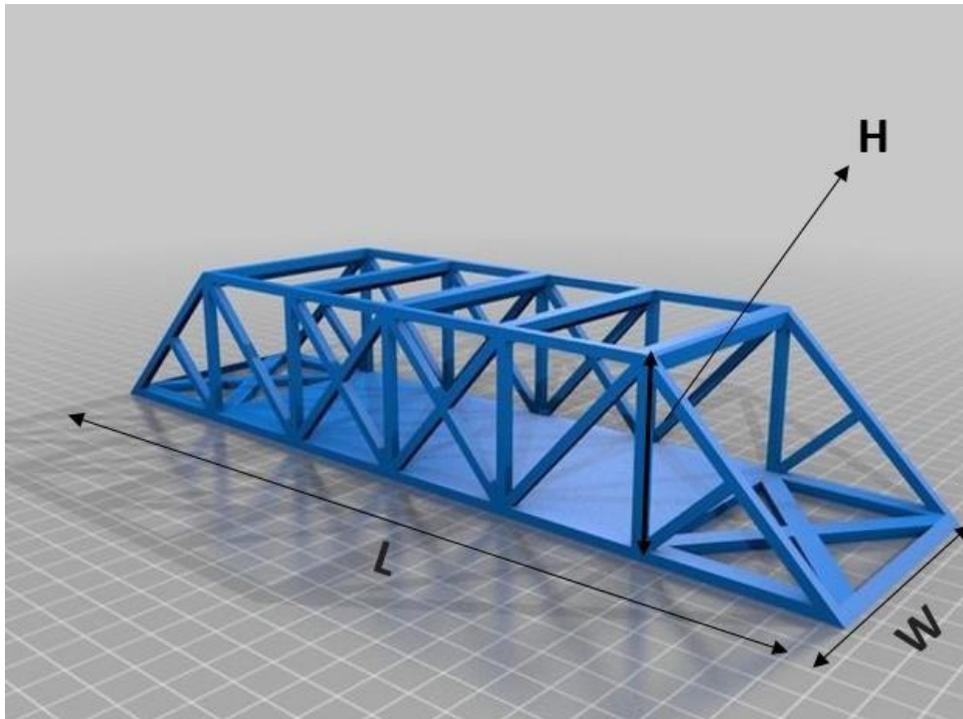
c) The teamwork will score points by moving together, using the time properly ...etc. it will be monitored by the juries **(15 points)**.

8. Penalty Score

a) The bridge is out of the given dimensions **(-20 points)**

b) Having a different material from the materials indicated on the model **(-10 points)**

9. Dimensions of the bridge



L: Bridge length min. 60 cm max. 75 cm

W: Bridge width min. 15 cm max. 25 cm

H: Bridge height min. 15 cm

10. Rewarding

After the scoring on April 27, 2018, the prizes will be distributed with the closing speech.

1.2500€

2.1250€

3.750€

Mention Award 500 €

The jury and all teams participating in the contest will vote at the mention of the honourable mentorship award.

11. Evaluation Committee

Prof. Dr. Lutfullah TURANLI

Assoc. Prof. Dr. Mehmet BARAN

Assoc. Prof. Dr. Ilker KALKAN

Asst. Prof. Dr. Gokhan TUNC

Asst. Prof. Dr. Mahmut Cem YILMAZ

Asst. Prof. Dr. Salah Haj ISMAIL

R. A. Omer MERCIMEK

12. Coordinating Committee

Asst. Prof. Dr. Salah Haj ISMAIL

R. A. Omer MERCIMEK

R. A. Duygu DEMIRTURK

R. A. Emin SENGUN

R. A. Mehmet Salih TURKER

R. A. Abdullah TURER

Erkam Kuntay YIGITCAN

Meryem AKSAKAL

13. Place of Competition

Ankara Yıldırım Beyazıt University Faculty of Engineering and Natural Sciences

14. What You Need to Have During Your Contest

- ID / Driver's License / Passport (one of them at least)

-Student Certificate (Signed)

1: 2 scale output of your designs on A3 paper

15. Students Who Will Attend the Competition From Outside of Ankara

- a) The place for you to stay will arrange by us.
- b) You must be at ASTI on April 24, 2018 at 17:00.
- c) On April 25,2018 an Ankara trip will be arranged for you dear friends.