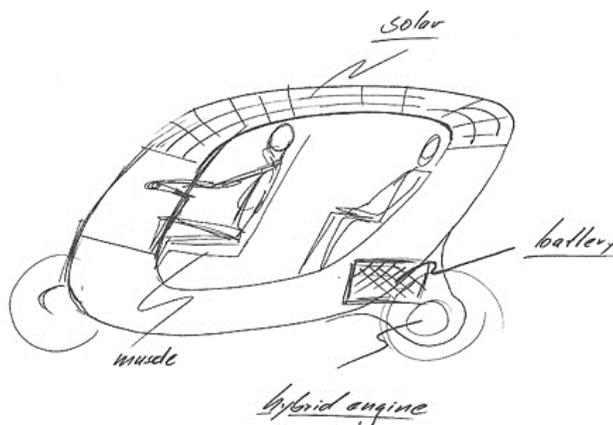


**ASSIGNMENT**  
**BETV 1013 – TECHNICAL CHEMISTRY**  
**SEMESTER I 2017/2018**

## RICKSHAW SOLAR POWERED ENERGY



### TASK

Develop a mini rickshaw powered by **SOLAR ENERGY**.

All materials must be provided by students.

Make a short video ( $\pm 2$  min) and post it on **YouTube**. Format: MP4, min 720p (HD).

Video Sample:

<https://padlet.com/imsymo/greenbeca>

<https://padlet.com/imransyakir/8b0gcw9k181q>

### GROUP

4 groups (8 students)

### MATERIALS

Rickshaw body must be made by using at least 80% of waste materials (Eg. plastic, paper, etc). The design's concept is based on your own creativity. Each rickshaw must have an '**eye pin hook**' at the back of the body (for Tug of War knockout activity)

### DIMENSION

Length: min 18 cm to max 20 cm

Width: min 12 cm to max 15 cm

## MARKS

Rickshaw design concept (Product) = 30%

Video = 30%

Race = 20%

Tug of War = 20%

Rank	Marks
Champion	10
First Runner Up	8
Semi Finalist	6
Quarter Finalist	4

## PRODUCT

1	Idea & Functionality (Creative, original and function)	10 marks	<b>30%</b>
2	Materials (80% recycle materials)	10 marks	
3	Design (Follow specs and size, excellent product quality)	10 marks	

## VIDEO

1	Content arrangement	10 marks	<b>30%</b>
2	Attractive idea, Interesting & Informative	10 marks	
3	Time management (2 min $\pm$ 5 sec)	10 marks	

## RACE ( $\pm$ 15-20 meters)

Rank	4	6	8	10	<b>20%</b>
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## TUG OF WAR

Rank	4	6	8	10	<b>20%</b>
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## BONUS

Best Product Design: 2 marks

Best Video: 2 marks

Race Champion: 2 marks

Tug of War Champion: 2 marks

# YOUTUBE VIDEO TITLE

UTeM Rickshaw Solar Powered Energy: Group Name  
Eg. **UTeM Rickshaw Solar Powered Energy: IMSYMO**

## VIDEO CONTENT

**Group Name**

**Methodology**

Idea, Drawing, Materials used, Mechanical Mechanism,  
Developing process, working product

**Group Photo**

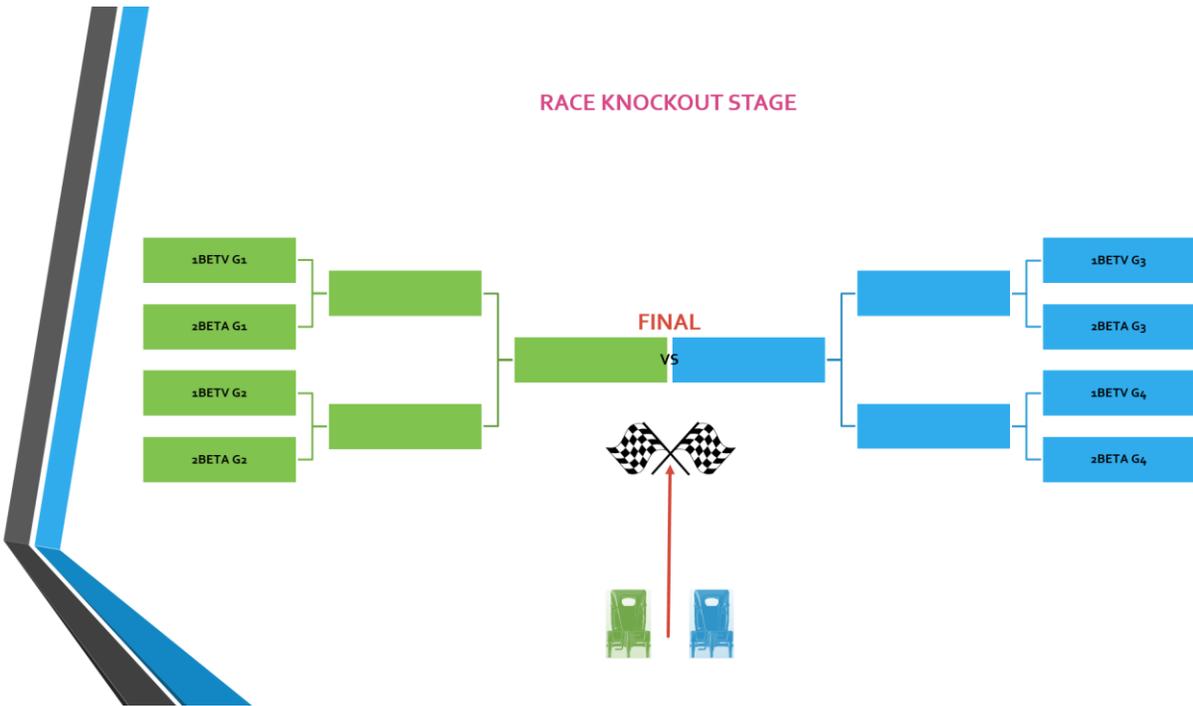
Submit your YouTube link to:

[imran@utem.edu.my](mailto:imran@utem.edu.my)

before **01.12.2017, 11.59 pm**

\*Please double check your YouTube link  
and make sure it's valid and can be watch directly from YouTube Channel.

# RACE KNOCKOUT STAGE



# TUG of WAR KNOCKOUT STAGE

