

CFES Idea Database – October 2011

Questions:

The answers to the following questions provide information on local engineering competitions:

1. Quelles compétitions avez-vous utilisé à votre compétition d'ingénierie locale pour le catégorie junior? | Which competitions have you used at your local engineering competition for Junior Design?
2. Quelles compétitions avez-vous utilisé à votre compétition d'ingénierie locale pour le catégorie senior? | Which competitions have you used at your local engineering competition for Senior Design?
3. Quelles compétitions avez-vous utilisé à votre compétition d'ingénierie locale pour le catégorie consultant? | Which competitions have you used at your local engineering competition for Consulting?

Responses

Responses are listed by school in language it which they was submitted.

1. Quelles compétitions avez-vous utilisé à votre compétition d'ingénierie locale pour le catégorie junior? | Which competitions have you used at your local engineering competition for Junior Design?

Unknownn School	Blow a candle out from as far away as possible Place a tower on top of a building Build a boat to cross a water tank while carrying a load
Unknownn School	Last year, the competition was to design something that could absorb the impact of a medecine ball.
Unknownn School	-Automatic emergency bridge deploying mechanism. -Mine resource moving mechanism. -Rescue package projectile launcher
Unknownn School	This will be our first year competing in Junior Design.
Unknownn School	build a device to resurface a small ice rink
Unknownn School	Junior design is mostly a mechanical/ civil competition were the group has to perform a specific task, such as getting an object from one point to another

Carleton University	Design a ballista, Design a catapult
University of Guelph	Generally we use a design involving small random materials and ask the student to design a way to solve the problem. In the past examples of problems they would have had to solve are moving an object from one spot to another using small motors, mouse traps, and other household items.
University of Alberta	A device to launch a free egg and a device to catch said egg, Dropping a free egg from x height and having it be caught and not broken, Building a newspaper tower with no other supplies and have it support a load. Move an amount of water up a ramp.
McGill University	Last year, our Junior Design competition required competitors to build an aqueduct to transport a given amount of water from one point to another.
McMaster	2011 Junior Design: Wind capturing device 2010 Junior Design: N/A
University of Western Ontario	Irrigate a field to maximize the spread of water. Blue food colouring was used to judge who spread the dye the most efficiently.
University of Toronto	Transport water from one container to another of the same size.

2. Quelles compétitions avez-vous utilisé à votre compétition d'ingénierie locale pour le catégorie senior? | Which competitions have you used at your local engineering competition for Senior Design?

Unknownn School	Lego Mindstorm enter a maze and collect items
Unknown School	We just got VEX kits, so our latest was to construct a robot that could maneuver itself into and over an incline and down into the ring.
Unknown School	-Resource retrieval off a cliff type situation. -Firefighting vehicle which had to put out real fire using water. -Gold retrieving mechanism/vehicle.



Unknown School	We joined ESSCO 1 week before the Ontario Engineering Competition. Because of this we did not have time to run a proper competition and so we drew names out of a hat. This year however, we will have a proper local competition.
Unknown School	build a functional washing machine
Unknown School	The senior design competition is basically the same but involving some electronics or motors, we are trying to integrate all of the disciplines this year.
Carleton University	Design a state of the art device (robot) that can travel within the castle, avoiding obstacles, to travel to 3 bases.
University of Guelph	For senior design, more complicated designs involving motors and electrical items. In the past we have had students design something to collect objects.
University of Alberta	Build a car to transport incremental weights over a distance combined with a coding challenge to decrypt a message.
McGill University	Our Senior Design competition was the design of a machine that would navigate a track and overcome several obstacles. However, the driver of the machine was blindfolded during the presentation.
McMaster	2011 Senior Design: Wind generating device 2010 Senior Design:N/A
University of Western Ontario	Create an expandable bridge to allow quick and easy transport over a gap while allowing for easy transport.
University of Toronto	Design a robot hand to pick up objects

3. Quelles compétitions avez-vous utilisé à votre compétition d'ingénierie locale pour le catégorie consultant? | Which competitions have you used at your local engineering competition for Consulting?

Unknow School	Don't run a school wide consulting comp
Unknow School	Latest problem: "What component of the e-waste lifecycle would be most beneficial to target in order to make the largest impact in mitigating the global problem of e-waste management? "
Unknow School	-Kitchener-Waterloo water conservation/protection consulting. -Red river flood mitigation. -High speed internet planning in Kitchener-Waterloo -Transit planning for Kitchener-Waterloo. -Energy policy consulting for industry in ontario.
Unknow School	We have never competed in consulting.
Unknow School	none
Unknow School	For the consulting, we give them a topic on the Friday, they have to submit a proposal by Saturday noon, regarding that topic.
Carleton University	Your mission should you choose to accept it, is to build a more environmentally friendly and structurally sound CSES Castle. Although an immense treasure was inside from Engineering Tuition fees being raised to \$100,000, no money is left. Therefore you must raise taxes, being careful not to annoy the peasants, and spend your money wisely.
University of Guelph	For consulting, previous problems have involved solving environmental issues like drainage.
University of Alberta	N/A
McGill University	Our consulting competition last year involved planning for a high-speed rail to be constructed from Toronto to Montreal. The rail was meant to be an extension of a hypothetical, already existing rail line from Windsor to Toronto.

McMaster	2011 Consulting: Pollution of a river on the McMaster campus 2010 Consulting: Integration of Hamilton's new Light Rail Transit
University of Western Ontario	Still retrieving more detailed information from consulting last year.
University of Toronto	Design a solution for monitoring heart attacks for the elderly.