





Dow-ETSEQ

Solutionism and Sustainability Awards





we strive. we lead. we thrive. we solve.

1.- TOPICS

Solutionism Award:

Second Use of Spent RO/NF/UF Membranes.

Reverse Osmosis (RO), Nanofiltration (NF) and Ultrafiltration (UF) membranes have a specific shelf life in its primary use in water treatment or purification depending on the application sector.

However, the spent membranes may have a second use or reutilization in other applications. In this challenge, the participants must propose a study about the feasibility of such a second use of these spent membranes, when conditions of the membranes cannot perform according to the specifications of its primary use. This second use can be in the same domain of water treatment or purification or additional practical applications other than in specific water treatment.

Energy supply for these proposed second uses, if needed, must be provided from renewable sources (other than fossil or non renewable sources). PE films & pipes as additional supplies are allowed to be used in the proposed solutions.

Sustainability Award:

CO2 Footprint Evaluation (European Rail Gauge vs. Road Transportation)

One of the priority infrastructures for the territory of Tarragona is the direct railway connection with Europe through the European standard gauge. The challenge given to the participants is to analyze and assess the CO2 footprint evolution in such a transformation from the current transportation road mode to the future scenario offered when this railway infrastructure becomes operational.

2.- TERMS & CONDITIONS

The call will be opened for expressions of interest to applicants the 5th. of June, 2013.

The deadline for the expressions of interest will be the 1^{st} of July, at 5 pm. (Tarragona time).

The applicants must be in the position of enrolling in either the Master's Degree in Chemical Engineering (MEQ) or the Master's Degree in Environmental Engineering and Sustainable Production (MEAPS) of the ETSEQ (www.etseq.urv.cat), by the month of July 2013, when the enrollment should be formalized.

The award will consist of individual scholarship to take one of the two aforementioned Masters. To receive the scholarship is a mandatory requirement to be enrolled in either the MEQ or MEAPS.

Scholarships will be granted for each one of the Solutionism and Sustainability challenges.

The expression of interest must be a letter of no more than two pages of length (one page recommended) expressing the willingness to participate and the motivation to undertake either of the challenges (Solutionism or Sustainability) in the framework of the education offered by the Masters (MEQ and MEAPS).

Although applicants can send the expressions of interest to opt for both awards, incumbents will only be finally allowed to submit one project proposal for one of the challenges (either Solutionism or Sustainability).

Letters of interest have to be sent by e-mail in pdf format to Isabel Gavalda (<u>isabel.gavalda@urv.cat</u>), indicating in the e-mail's subject; "Letter of interest Dow Solutionism/Sustainability_<name of the applicant>"

3.- PROJECT SUBMISSION

The project proposals have to:

- Be carried out into teams of two to four members,
- Must be written in English, 25 pages in extension (following and according to ETSEQ' style manual).
- Contain a cover letter indicating the names of the team members.

Project Submission deadline: 30th of September 2013, at 5 pm. (Tarragona time).

Projects have to be send by email in pdf format to Alfred Arias (aarias@dow.com), within a message indicating in the e-mail subject's; "Application to Dow Solutionism/Sustainability_<name of the team>".

4.- PROJECT'S EVALUATION PROCEDURE

Project's proposals will be evaluated by a combined Dow-ETSEQ panel and will have to be defended by the whole team in front of the Dow-ETSEQ panel in English.

The defense will consist of a team presentation of no more than 20', followed by a questions and answers session lead by the Dow-ETSEQ panel.

The defenses will take place within the month of October, at the ETSEQ facilities.

The exact dates in which the project's defenses will take place will be communicated to the applicant teams in due time.

Award Winners Publication: 30th of October 2013 (www.etseg.urv.cat),