

Report on Robotronics and Architectural Drawing Workshop

Day/ Date - Friday/ 27 April 2018

Venue - Conference Hall & Physics Lab

Conducted by - Lecturers from Queens University Belfast

Attended By - Students of Non Medical stream of Class - XII of ITL Public School

A delegation of elite professors from the Faculty of Engineering Physical Science, Queens University Belfast, came to ITL Public School to conduct two workshops for the students of Non medical Stream of Class XII.

A workshop on Robotronics was conducted by Dr Mukul Shukla, Lecturer in Mechanical and Aerospace Engineering & another workshop on Architectural Drawing was conducted by Dr Rachel O' Grady, Lecturer in Architecture.

Dr Mukul explained the uses of Robots in natural disaster prone areas through a presentation. He made the students aware about drones, their usage, basic structure and functions. The session was followed by a problem solving competition wherein students were divided into groups of 5-6 and were given 3 challenges. The challenges required – were to define a disaster scenario in which a robot could be used; to specify the design of the robot including mechanical details, materials used or any other additional measurement device and tools to be added; and to state the purpose that the robot would serve and communicate the benefit of the robot in difficult situations. The students were provided short briefings on key technologies that they could include in their design.

Dr Rachel gave a short presentation on the topic "Why to study Architecture" which gave an insight into designing and captured complex structural ideas in form of drawings and sketches from different perspectives. The students were then divided into groups of 5 and given 3 challenges – To draw a line sketch of your friend while the latter poses for you, to draw the architectural plan of the venue (Physics Lab) and to draw the architectural setting of any building. The students explained their work and were given feedback regarding the impact of light to show depth, hierarchy of space etc. Dr Rachel also discussed how learning could be applied to the design of a new building or public space. The winners of each round were awarded.

After the students presentation, the winning team was awarded with exclusive T-shirts from the University.

The workshops inculcated problem based learning and independent thinking amongst the students. Our students look forward for more of such fruitful sessions.













## **Your Task Today**

- Define a disaster scenario in which a robot(s) will be used.
- Specify the visual concept of the robot(s). You can even think about their mechanical details and materials used.
- Specify any additional measurement devices and tools to be added to the robots.
- State what purpose the robot(s) will serve.













