

SPECIALS

- Paper Presentation
- Open Showcase
- Industrial Process Design
- Schoolbag

PAPER PRESENTATION

About:

Quark 2018 is hosting a paper presentation event with an objective to encourage talented and skilled young engineering students to showcase their creative original work in the domain of research. Given the difficulties involving undergraduate publication, we offer undergraduate students from any engineering or science stream an opportunity to present their research work.

We intend this to be an open platform for presenting innovative ideas through research papers and competing with peers in the field of engineering. We invite you to showcase your innovative ideas on this platform which will be judged by an experienced panel of Professors.

Categories:

- Mechanical and Chemical Engineering
- Electronics, Instrumentation and Computer Science
- Sciences
- Humanities, Economics and Management

PAPER PRESENTATION

Competition Format:

While the final event that takes place on campus is a presentation by the group that worked on the project, we will require you to submit the abstract of your paper to us ahead of the competition, which would form the preliminary round in the competition. **We will select the best papers based on the abstracts.** The decision of the judges and the organizers shall be final and abiding vis-a-vis the selection of the papers for the final presentation.

Last date for the submission of the abstract and the paper is 15th January 2018.

The groups whose papers are selected will have to come over to our campus to give a presentation. A presentation has to be created by the team based on their paper which should be presented in the presence of the judges. Each group will be given **10 minutes** to present on their paper, followed by a questioning period by the judges of up to **5 minutes**. Use of visual aids, like a PowerPoint presentation, are encouraged.

Each group can have a maximum of **4 participants**.

We will be judging the participants not only based on the presentation, but also on the paper submitted, with equal weightage for both components.

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Round 1:

- Participants should mail their abstracts and papers to [Anirudh Dwarakanath](#) by the 15th of January and mention their registration number, category and topic in the body of the mail.
- The abstract should not be more than 500 words long, and should attempt to capture the essence of the paper. Abstracts should state clearly and concisely the problem, methodology used and central conclusions, and may include figures and graphs.
- Please ensure that your abstract matches the following:
 - The first sheet is blank, but for your project title, team registration number, names of the team members and their respective institutes.
 - The last sheet, following the abstract, may have a list of references – websites, books, journals and so on, which amply support the ideas or solutions implemented or proposed.
 - The information in the abstract should not be very descriptive or vague. It is recommended that vital aspects of the project that require special focus be mentioned as bold points.

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- Teams selected on the basis of the first round will have to give their presentation in Quark 2018. We will mail the groups whose papers have been selected.
- Those who are selected for the final round are required to e-mail [Anirudh Dwarakanath](mailto:Anirudh.Dwarakanath). The mail should consist of the following:
 - Acknowledgement that you are aware of you being selected.
 - Details of all the team members: Names, Departments, Phone numbers and College.
 - You must send in your paper by this time, in case you hadn't already.
- For the final round, the participants will have to give their presentation in Microsoft PowerPoint.
 - Only picture clippings and graphs may be used.
 - Recorded dialogues or movie clippings are not allowed.
 - We will provide a computer for presentation. The teams will get 1 minute to set up their presentation and 10 minutes to present their idea.
- **Exceeding the time limit carries penalties: 2 points for up to 2 minutes extra, 15 points for between 2 and 5 minutes extra, and 20 points for more than 5 minutes.** Please keep your presentation concise.

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Guidelines and Regulations:

- Each group can have a maximum of 4 participants.
- The paper you wish to submit should, preferably, be a research paper. However, you can submit papers on experiments, project work or reviews.
- Any sort of plagiarism is frowned on and discouraged. Any sort of plagiarism **will** lead to disqualification.
- The papers should have proper references/ citations.

Judging criteria:

- The submitted papers will be marked on a scale of 1-10 on the basis of the following criteria:
- A concise, informative abstract.
- Adequacy of introduction and background to the topic on which the paper is based on.
- Logical development and analytical treatment in the body.
- Adequacy of conclusion to the paper.
- Factual and technical accuracy in the paper.
- Originality of ideas, experimental procedure, design, and results or conclusion.

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The presentation on campus will be judged on the following criteria, with a similar marking scheme:

- Organization of presentation – that is, it has a recognizable introduction, body and conclusion.
- Logical development through the presentation.
- Poise, eye contact and platform manners.
- Clarity and directness in exposition.
- Apparent technical and factual accuracy, and students' grasp of the subject matter.
- Discussions and the ability to answer the judges' questions.

OPEN SHOWCASE

About:

Open Showcase during Quark 2018 is a platform where you get to promulgate your projects and models, and make your amazing skills of design and innovation known to the world.

Categories:

- Mechanical and Chemical Engineering
- Electrical, Instrumentation and Computer Science
- Sciences

• Abstract Submission:

- Participants should mail their abstracts to [Anirudh Dwarakanath](#) with the registration number as the subject and the participation category clearly mentioned in the body of the mail.
- Last Date for submitting the abstracts 15 Jan 2018. Only entries selected based on their abstracts are eligible to be exhibited at Open Showcase, Quark '18. Participants are also required to mention at the beginning of their abstracts if their idea has a prototype/model. A brief idea of how the design would be presented (exhibited) during the exhibition should also be included in the abstracts.

OPEN SHOWCASE

- The abstract should not exceed 600 words. Please ensure that your abstract matches the following:
- The first sheet is blank, but for your project title, team registration number, names of the team members and their respective institutes.
- The last sheet, following the abstract, may have a list of references – websites, books, journals and so on, which amply support the ideas or solutions implemented or proposed.
- The information in the abstract should not be very descriptive or vague. It is recommended that vital aspects of the project that require special focus be mentioned as bold points.
- Only the participants who are short-listed in the screening round based on judging of the abstracts shall be invited to Quark 2018 for the final round.
- Qualifying participants will have to make a presentation before a panel of judges explaining the salient points of their idea/innovation.
- At the final presentation during Quark, the teams will be allowed to bring along a working model that gives the judges proof of concept.

OPEN SHOWCASE

Judging Criteria:

The participant will be judged on the following criteria:

- Innovation
- Feasibility and Sustainability
- Cost Effectiveness
- Social Viability
- Discipline
- Project Report

INDUSTRIAL PROCESS DESIGN PROBLEM

About:

"We keep moving forward, opening new doors, and doing new things, because we're curious and curiosity keeps leading us down new paths"

-Walt Disney

This event aims to be a shout-out to all those creative engineers out there.

The general steps of any engineering design process are to define a problem, do background research, specify requirements, optimize the solution, build a prototype and then finally test the design. Here we pose a challenge before you to come up with an optimized and economic solution to a problem.

Students will be given 3 problems faced by many chemical industries, who have to choose any one of 3 and provide a feasible solution to that problem.

INDUSTRIAL PROCESS DESIGN PROBLEM

- **Judging Criteria:**

The participants will be judged on the basis of feasibility and innovation.

- **Rules:**

- Please mail [Anirudh Dwarakanath](mailto:Anirudh.Dwarakanath) to get the design challenges set as a part of this event.
- The solution has to be presented in the form of a PowerPoint Presentation.
- Maximum of 4 members per team.
- Teams can be formed between students from any college
- Any number of teams can participate from a college. Only ONE presentation is allowed per team.
- The preliminary round includes the submission of a solution to one of the given problems in the form of a presentation which should be mailed to [Anirudh Dwarakanath](mailto:Anirudh.Dwarakanath), with the participants' details (name, college, year, branch, contact no, email-id) and chosen topic. Use of appropriate media content is allowed in the Presentation.
- Last date for submission of the presentation is the **15th of January 2018**.
- For the final round, shortlisted participants will be required to explain their presentation for not more than **10 minutes** and be prepared to answer any queries from the judges
- Please try to not deviate too much from the original presentation.

SCHOOL BAG

Schoolbag is a mixed bag of events, interactive sessions and workshops, or Guest talks, designed for the participation of students of Secondary and Higher Secondary Schools. It has events ranging from education, to arts and fun. The aim of this event is none other than to provide an opportunity for the Secondary and Higher Secondary students to visit BITS Pilani Goa Campus during the technical festival Quark, to explore innovative technical projects and exhibits, and to participate in exciting events. The competition promote education and learning of our young minds and nurture the potential within them. We plan to have a quiz, debate and a science fair as part of this conglomeration, in separate categories for secondary and higher secondary schools.