The TechQuest Awards 2016

NJIT undergraduates as individuals or as teams may enter this innovation competition and be eligible for awards and stipends totaling $17,500.

Competition Rules

1. Eligibility
This competition is to promote and reward innovation among NJIT undergraduates. Participants must be in good academic standing and be enrolled full-time during the fall and spring semester of their year of entry. Students may form teams consisting of undergraduates from any NJIT department. There is no limit to the number of members on a team; small interdisciplinary teams are generally the most effective. Teams may have as an advisor an NJIT faculty member or other person associated with NJIT. Questions on the eligibility of an advisor should be referred to Dr. Atam Dhawan. Class projects, including those for design courses and the Interdisciplinary Design Studio, and research projects by undergraduates may be entered in the competition. Projects entered in TechQuest may build on prior projects, but the presenting team must identify its unique contribution to the presented work. For 2016, a new award, First Prize (1st Time), will be given for projects and for teams whose members have not won a TechQuest award previously. There will also be First, Second and Third place awards without restrictions except that previous award winners may not enter the same project again. In the preliminary round of judging, eight finalists will be selected from entrants based on a five-page written report due on FEBRUARY 11, 2016. In the final round of judging, the eight finalists (individuals or teams) compete in an oral presentation on MARCH 28, 2016. TechQuest winners will be announced on Innovation Day, APRIL 15, 2016.

2. Qualifying Proposals
The entrants in this competition are to demonstrate an invention, or novel combinations of known technologies, or a unique approach to a market. A proposal may contain more than one of the above elements. Eligibility for a US Patent provides useful criteria for inventiveness: a process, machine, manufacture, or composition of matter that is novel, non-obvious, and useful. A novel combination of known technologies may not be patentable because of prior art but may be the basis for successful commercialization and is eligible for the competition. Marketing a known technology to new customers or for new applications also qualifies and may also be the basis for a new business.

Judging criteria are given in Section 5 below.

The innovative idea must originate within the team and/or team advisor as documented in the written report. Ideas which originate outside NJIT, e.g. a co-worker at a place of employment, are not eligible.

3. Requirements
Registration is accomplished by submitting a five-page report (Section 5) by email to techquest@njit.edu no later than midnight FEBRUARY 11, 2016. To inform entrants on potential patent and prior art issues, all TechQuest participants are encouraged to attend a single session addressing intellectual property on February 12, 2016 at 10:00 – 12:00 at Campus Center 240 or to view the presentation online at
http://www.njit.edu/officetech/pdf/basics_talk.pdf. Mr. Suraj Chivukula, Esq. is the Assistant General Counsel for Patents & Intellectual Property and is responsible for overseeing all patent prosecution for NJIT. He will conduct the session which addresses prior art searching and patent essentials. He will also answer questions on the invention disclosure process (suraj.chivukula@njit.edu). General information concerning patents is available at http://www.uspto.gov/patents/resources/general_info_concerning_patents.pdf. Mr. Chivukula will receive all the reports submitted to TechQuest and be notified of the eight finalists. At his discretion, Mr. Chivukula may ask a team to submit an invention disclosure prior to judging of the oral presentations.

Each student participant is strongly encouraged to document the origin of ideas and safeguard data in a laboratory notebook or by other means. A written record is essential to clarify the source of patentable ideas.

Questions on TechQuest should be directed to Dr. Atam Dhawan Dhawan@njit.edu.

4. Awards The TechQuest awards for 2016 consist of two parts: (1) a cash recognition award for each member of the winning teams, and (2) four stipends of $3000 each to be used by winning team members to continue work during the following summer at NJIT on their projects. The four TechQuest cash awards for 2016 are

<table>
<thead>
<tr>
<th>Cash Recognition Awards</th>
<th>First Place (1st Time)</th>
<th>First Place</th>
<th>Second Place</th>
<th>Third Place</th>
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<tbody>
<tr>
<td></td>
<td>$2000</td>
<td>$2000</td>
<td>$1000</td>
<td>$500</td>
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The First Prize (1st Time) award is for projects and for teams whose individual members have not won at TechQuest previously. Teams wishing to compete in the 1st Time category must write “1st Time Participation” on the title page of their report. Dr. Atam Dhawan will resolve any questions about 1st time participation.

Cash recognition awards are to be divided equally among team members. Team advisors are not eligible to share in the awards.

TechQuest summer stipends will be provided to three winning team members who continue working on the research, development and commercialization of their idea as part of the Provost’s Summer Research Program and the NJIT Summer Innovation Accelerator Program (prepares students to launch businesses). Total support during the summer to an individual from TechQuest, university funds or grant/foundation funds is capped at $3,000.

The stipends for summer programs will be awarded, in order of preference, to the First (1st Time), First, Second, and then Third place team members. Any remaining awards will go to TechQuest participants who did not win awards. Other sources of funding are available to support summer work.

All TechQuest awards are given at the discretion of the judges. Interpretation of the competition rules, including disqualification of individuals or teams, will be made by the judges. Decisions of the judges are final. Advisors to TechQuest teams may not serve as judges.

5. Judging Criteria

Eight individual or team projects will qualify as finalists on the basis of five-page written reports which will be confidential. TechQuest award winners among the finalists will be decided at a closed oral presentation on March 28, 2016. The oral presentation will also be confidential. Ratings will be weighted one-half on the report and one-half on the oral presentation. Both the written report
and presentation may contain intellectual property and other confidential information and will not be disclosed publically to protect this information. Entrants are encouraged to provide sufficient technical detail so judges can assess the feasibility of the project. A requirement for judging is to maintain the confidentiality of the written report and the oral presentations.

The criteria used by the judges are given on the Evaluation Sheets in the Appendix for both the written report and oral presentation. Market research, including interviews with purchase decision makers and end users, examination of competitive products, etc., will help establish credibility for the Market and Financial Consideration categories. A detailed business plan is not expected.

**Written Report.** The body of the written report will be no more than five pages in length. Any content exceeding the first five pages may be ignored by the judges. The report will be submitted in electronic form, preferably as a PDF document. The report should contain references and may include links to material on the internet. Drawings, diagrams, and photos are encouraged to facilitate understanding. The written report will be treated as confidential by the judges.

The report will have a cover page, not included in the page count limitation, which will include the project title, and a listing of the name of each team member with contact information (email and phone number), major, graduation year, and contribution to the project. The name of the NJIT advisor or course instructor and 1st Time Participation, if eligible, should also be on the cover page. One team member should be designated as the contact person. Pages are to be numbered.

An electronic version of the report must be emailed to techquest@njit.edu no later than midnight, FEBRUARY 11, 2016. Submission of the report constitutes registration for the individual or team. A panel of judges will determine the eight finalist teams based on the written reports.

**Oral Presentation:** Each individual or team finalist will make an oral presentation to the judges on MARCH 28, 2016. The oral presentation is closed to the public and may contain proprietary information. All members of the team are expected to attend the presentation and be available to answer questions. The presentation will be a maximum of 6 minutes and will be followed with questions by the judges for up to 8 minutes. The question period is an excellent opportunity for team members to demonstrate their collective breadth and depth of knowledge in the technical and marketing aspects of their project. The question period does not have a separate judging category; the answers to questions will influence judging of the seven other categories. A computer enabled projector and a table for displaying samples or prototypes will be available.

**Poster Presentation:** Finalists are required and other entrants are encouraged to participate in the poster session on Innovation Day on APRIL 15, 2016. The poster session is open to the public and many include interviews to be posted on social media. If a team wishes to preserve patent rights to its project, the poster must not contain an enabling disclosure of its invention. The team may contact Mr. Suraj Chivukula with questions about intellectual property and what constitutes an enabling disclosure. He may also contact the team on patent issues based on information in the written report.

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**TechQuest Timeline**

<table>
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<tr>
<th>Date</th>
<th>Event</th>
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<tr>
<td>FEBRUARY 11, 2016</td>
<td>Submit 5-page report at <a href="mailto:techquest@njit.edu">techquest@njit.edu</a> (Registers team)</td>
</tr>
<tr>
<td>FEBRUARY 12, 2016</td>
<td>Intellectual Property Presentation, 10-12:00 at Campus Center 240</td>
</tr>
<tr>
<td>MARCH 21, 2016</td>
<td>Submit invention disclosure if requested by Suraj Chivukula</td>
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<tr>
<td>MARCH 28, 2016</td>
<td>Oral presentation by 8 finalists</td>
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<tr>
<td>APRIL 15, 2016</td>
<td>Innovation Day Poster Session - TechQuest winners announced.</td>
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## Appendix
### TechQuest Evaluation Sheet: Written Report

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<tr>
<th>Project Title</th>
<th>Judge</th>
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<tbody>
<tr>
<td>Contact Author</td>
<td>Highest</td>
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<td>5 4 3 2 1 0</td>
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</tbody>
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Score of 0 for no information in category.

1. **Problem and Significance** 10% What problem (scope, need, urgency) is the basis for your innovative idea?
2. **Creativity/Patentability** 20% What is creative/insightful about your approach to this problem? What is your team’s unique contribution? What existing patents may limit your freedom to practice or ability to seek a patent?
3. **Feasibility** 10% What evidence shows your idea is feasible, e.g. experimental data, prototypes, simulations, analogies, literature, experts, etc.?
4. **Market** 10% What is your target market? How will you approach it? How is your product/service better than competitors or alternatives?
5. **Financial Considerations** 10% Can your product/service be cost competitive? How can development be financed? What exit strategies are possible?
6. **Challenge** 10% What is the greatest challenge in the next phase of your project? How will this challenge be met?
7. **Written Report** 30% Evaluate the quality organization and completeness of the report.

Judges’ comments to be given to authors.

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## Appendix TechQuest Evaluation Sheet: Oral Presentation

<table>
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Score of 0 for no information in category.

1. **Problem and Significance** 10% What problem (scope, need, urgency) is the basis for your innovative idea?
2. **Creativity/Patentability** 20% What is creative/insightful about your approach to this problem? What is your team’s unique contribution? What existing patents may limit your freedom to practice or ability to seek a patent?
3. **Feasibility** 10% What evidence shows your idea is feasible, e.g. experimental data, prototypes, simulations, analogies, literature, experts, etc.?
4. **Market** 10% What is your target market? How will you approach it? How is your product/service better than competitors or alternatives?
5. **Financial Considerations** 10% Can your product/service be cost competitive? How can development be financed? What exit strategies are possible?
6. **Challenge** 10% What is the greatest challenge in the next phase of your project? How will this challenge be met?
7. **Oral Presentation** 30% Evaluate the effectiveness and coherence of the oral presentation and the team’s commitment to the project.

Judges’ comments to be given to authors.