

The students of Delhi Technological University (Formerly Delhi College of Engineering) have been participating in International competitions on design and development of innovative surface/ground/air/ underwater/autonomous vehicles and products since last many years. These teams have been financially supported for meeting air travel/cargo expenses in the past. These teams have brought recognition and laurels for the university and this exercise has distinguished DTU among other prestigious institutions in India and abroad.

In the recent past, number of such innovation teams has been increased and a large number of requests are received for financial support for developing the prototype and meeting air travel and cargo charges by the innovative teams of DTU. Therefore, there is a need to frame guidelines for conceiving the project proposal and financial support to meet the development of the prototype and the air travel and cargo charges.

In order to streamline the funding and university support process, following regulations and process may be adopted by the University.

Categorisation of DTU student Innovation Teams:

- participating in international competitions since last three years have approved lab, faculty advisor(s), and account in the bank with evidence of receiving sponsorship etc. For example; DTU-UAV/UAS, DTU-AUV, Super mileage, Hybrid ear, Formula Car, Solar Car, Mini Baja etc will be categorized as EIT of DTU. The category shall also include teams undertaking challenges issued by professional societies like IEEE, SAE, AUVSI etc. Advertised globally on regular basis(annually/bi-annually). For such team Dean (IRD) office will maintain a record with duly filled forms describing the details of the innovation team updated yearly with recommendation of assigned faculty advisor and details of developments. The faculty advisor will be appointed each year by Vice-Chancellor/Pro-Vice-Chancellor on recommendation of Dean IRD.
- (ii) Developing Innovation Team (DIT-DTU): An innovation team which has taken shape in last two years in any area of science, technology and management in the form of a Product and are trying to establish them as Lab/Research & Development centre with approved faculty advisors by Dean (IRD), evidence for sponsorship etc.
- (iii) New Innovation Team (NIT-DTU): An innovation team which is new and is trying to develop a product first time in DTU involving group of students with approved faculty advisor(s) of relevant areas.

Constitution of DTU innovation team for particular challenge:

(i) The faculty advisor of EIT will issue an advertisement for constitution of new team on the notice board and website of DTU, and select the team and team leader through interview/written test. Team should normally be comprised of students from I year, II year and/or IV year. PG and PhD students if permitted by the organiser of the competition may also be allowed.

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- (ii) For DIT and NIT students teams, entries may directly submit the application to AR(IRD) with proposed faculty advisor. The AR(IRD) will convene the meeting of all faculty advisers under chairmanship of Dean IRD, and two/three subject experts(to be decided by Dean IRD) 15 days before the closing date of completion, and evaluate the proposals of different teams for that particular competition though their presentation and viva-voce. The selected team will in turn submit the proposal which will be evaluated by the following committee, under the name "Committee for financial support to Innovation Team". The member of the committee will be:
- (i) Dean, IRD (DTU), Chairman
- (ii) HOD of participating departments
- (iii) Faculty Advisors
- (iv) Two Experts at the level of professor or senior associate professor in the relevant field approved by VC/PVC, DTU in consultation with Dean (IRD). At least one expert should be from different department.
- (v) AR (IRD)-Convenor

Submission of proposal and its evaluation:

- (i) Each team shall fill the details of the selected team members, details of the codal formalities done for selection of team, expertise of each student team member, allocation of work to be done by each member, brief justification of their representation, departmental/inter-departmental status, names of willing faculty advisor in the area of prime expertise needed for carrying out the project, and certificate from team members for selection of team leader.
- (ii) Each team submit a copy of challenge issued from the organisers to be executed, rules and regulation of the competitions, list of participants in the past year(if applicable), representation from the country, participation history of the DTU in the competition.
- (iii) Each team should also submit a brief write up detailing the design methodology with diagrammatic representation of the proposed prototype, its unique merits and rapabilities, innovation involved, patentability of the product outcome, possibility of its defence services/ industry adaptation. The claim should also be supported through a patent search (National/International).
- (iv) Each team will also outline the testing procedures to be followed for the developed prototype with appropriate references of the standards, patents and research papers.
- (v) Each team should also propose a clear-cut blue print of the product/prototype to be developed. The details must include considered design parameters, approximate weight and the sizing of prototype, requisite Consumable and Non-Consumable components/parts and their quantities, materials required fabrication of the structure, details of fabrications to be done outside DTU ie, in industry/reputed R&D centres/ collaborating institutions(if any), special component/equipment to be imported, professional consultancy/testing fees, renting of state of art equipments, approximate travelling, and shipping/ cargo requirements for transportation of the developed prototype. These details must be supported through brief justifications, budgetary quotations for cost estimation

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with clear demarcations under each category including contingencies and consumables.

(vi) Each team must produce a letter of support from Industry/Govt. for purtial sponsorship, if the total cost (including travelling of Team members and shipping/cargo charges) of the proposal exceeds Rs. 10 Lakhs. The University support for prototype development will vary, depending on the total cost (as aforesaid) of the project. The support will be as follows:

Total Cost of the Projec	DTU support on Prototype Development	
	if solely developed at DTU	if partially developed outside DTU
Up to 10 lakhs	100%	70%
Up to 25 lakhs	70%	50%
Above 25 Lakhs	50%	30%

- (vii) No university support will be given to the teams who are getting their prototype fully fabricated and developed outside, even if the design is done by the team members.
- (viii) The Committee for financial support to Innovation Team will evaluate the proposal irrespective of category of the team, on the basis of merits and innovative potential, and, recommends the Dean IRD with justification and overall cost involved in executing the project. In case the budget is above 25 Lakhs one expert of relevant area may be opted from IITs/NITs or institutes of national importance. Adequate honorarium should then be provided to the outside expert for attending the meeting besides TA/DA.
- (ix) The Committee for financial support to Innovation Team will recommend the exact amount for approval by VC/PVC to be distributed to the team under scrutiny/evaluation.

Foreign travel

- (i) Committee recommends support of upto50% of air travel and 50% of shipping/cargo charges with following conditions for the innovation team under all categories.
- (ii) Team size visiting abroad should be maximum of six students, however in normal circumstances a team of four students should be supported for air travel grant.
- (iii) Students' team should be comprised of only registered students of DTU on the date of competitions.
- (iv) Air travel support should be maximum of Rs. 4.00 Lakh for each team in a given year including visa charges, airport transport etc.
- (v) Cargo charges support should be maximum of Rs. 2.00 Lakh for each team in a given year subject to retrieval of the developed prototype/vehicle/product in the assigned lab of DTU.

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- The services of empanelled operators for cargo and shipping by Govt. of (vi)India/Govt. of Delhi be only taken for shipping/ transportation of prototype developed by DTU innovative teams.
- Team irrespective of the category is required to demonstrate the working prototype and pass the suitable endurance tests as per challenges prescribed by the organisers of the competitions and the same required to be certified by the faculty advisor and experts before putting up the proposal to Dean (IRD).
- All other financial and administrative regulations laid down by DTU administration and/account section should be applicable to each student team.
- In normal cases the teams should fly by Air India upto the nearest place on routes Air India flies, as per Gol/GNCT norms. However, if a direct flight with other International/National Airlines is available to the destination, and is cheaper than the total cost of the travel taken into account the partial route covered by Air India, upon production relevant documents necessarily including the following two documents, Vice Chancellor/Pro Vice Chancellor may approve the travel with International Airline. The conversion charges of International currency versus Indian Rupee will be considered on the date of proposal for such comparison. The support from the University shall be computed on the lowest of the two, i.e. amount considered for comparison if travel through International Airline is made

1. Fare comparison of direct flight to destination by International/National Airlines (other than Air India) with that of the route partially covered by Air India.

2. Certificate from Ministry of Aviation, Gol, that Air India does not fly directly to the

- Student team members may be reimbursed 50% of local travel by City Bus/Metro (X)from place of stay to the venue of the competitions on production of tickets.
- Student team members will not be reimbursed/paid any expenditure on food bill, (xi)accommodations, currency conversion charges and any communication or data
- Each Student Innovation Team, considered for University support will be provided with 100% reimbursement on payment of registration fee, upon production of relevant proof of transaction money in favour of organiser/ receipt of registration fee.
- (xiii) Each student team member will be reimbursed 50% of expenditure on Medical/Accident Insurance for foreign travel on production of relevant documents after settlement of advances. Theft, damages or penalty imposed for miseonduct or rule violation etc should be on account of student, the University will not bear any financial burden. However, under force majeure the University reserves the right to help the student team members on situation basis.
- The University will make payment in Indian Rupees after approval of the competent authority. Student team members are advised to keep record of the currency conversion rates as on the day of corresponding expenditure and the same may be referred at the time of settlement of account/ reimbursement

Modus Operandi for expenditure and maintenance of accounts

- Committee also recommends opening of bank account for each innovation teams of DTU and recommends that all transactions should be done through their account individually. The account should be jointly operated by account officer and student team leader.
- (ii) Every item to be purchased by the team should have recommendation of faculty advisor. The purchase should be done as per GFR prescribed by Govt. of India, except for procurement of items from abroad, where purchase may be done through credit card directly from manufacturer upon acquiring online quotation s.
- The advances in normal case should be settled after fifteen days of return from (iii) competition. The faculty advisor should render all support in settling the advances. The no-dues should in no case be given to team, if they do not settle the advance in time. The settlement of advance should precede with auditing of account by chartered accountant and the report should be attached along with bills.

Dress of the participating DTU Team

Each team may procure a dress for its members representing the University in the competitions. The limit for reimbursement for dress of each member should be within 500/-, no matter what is the actual cost of the dress. Committee feels that the remaining part may be complemented from support from sponsoring industry/Govt.

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