

Anveshan

Student Research Convention

Monograph



Research Division

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Foreword

‘Anveshan: Student Research Convention’ launched by the Association of Indian Universities (AIU) has been attracting overwhelming response and enthusiasm from the young scholars and the community of researchers in the universities. Envisaged as a zonal and national level competition, aimed at showcasing the research and innovation taking place in the universities, the Anveshan provides a platform to the emerging researchers in universities to express their ideas and creativity leading to innovative research initiatives.

Aimed at identifying and nurturing research talent of the young and budding researchers in the country, the Anveshan is guided by two principal objectives: Firstly, to identify young researchers with research aptitude and interest and motivate and support them for taking up research as a career. Secondly, to identify fresh talents with unconventional and innovative ideas and channelise them into research that would contribute to creating a solid core of knowledge workers and simultaneously solving the day to day problems by finding dynamic and plausible solutions.

This Monograph, presents details of guidelines, rules and procedures that are followed in conducting the Anveshan: the Students Research Conventions. It provides a clear roadmap to guide the member universities of the AIU in planning, preparing and executing the conduct of the: Students Research Conventions in a systematic and organised manner. I hope that the member Universities of the AIU will find the document useful in planning, organising, conducting and participating in the Anveshan: **The Students Research Convention.**

I am sure that this initiative of the AIU will go a long way in inspiring the institutions of higher learning to generate the required energy and momentum to create a solid and much needed research ecosystem in their campuses by promoting fresh ideas and innovative research projects.

Prof Furqan Qamar
Secretary General
Association of Indian Universities
New Delhi 110 002

Anveshan : Student Research Convention

Preamble

Spirit of inquiry, creativity and innovativeness are some of the natural endowments bestowed upon human beings, which are the keys to transformation of life. These factors, when manifested in the form of research, open new frontiers of knowledge, which is instrumental for all forms of development. Perhaps, this is the reason for which research is recognized as one of the core functions of the universities/institutions of higher learning and the universities have been rendering this responsibility with utmost diligence. India's noteworthy progress in the field of Information Technology, Energy and Space, etc., are the outcome of consistent endeavour of our intellectual resources. India, currently producing a solid core of knowledge workers in tertiary and scientific and technical education and its economy and industrial sector set for an unparalleled growth is poised to become the future global knowledge hub. However, the onus lies largely on our Higher Education system and particularly on our universities. But, of late, research has become a subservient component in the university functioning. Resource constraints, lack of commitment, proper incentive etc., are the impediments that are affecting the quality of research in our institutions of higher education. Other important factors for the deterioration of the quality of research are the absence of adequate training and other capacity building endeavour in our system, which have restricted students' creativity only to rote memory. On the contrary, their potential should be nurtured and harnessed for the benefit of the society. The current boom in Indian economy signaling an era of transformation should provide ample opportunity for success to innovative young brains to become trend setters and role models of a vibrant India.

With a view to inculcating research culture in our higher education institutions, the Research Division of Association of Indian Universities has taken a pioneering initiative to organize Student Research Conventions for the aspiring researchers throughout the country. These Conventions aim at identifying the young and rising talents who would be promoted through proper encouragement and incentives. Also an attempt shall be made to commercialize their research projects with industrial collaboration. The endeavour may accelerate scientific research and innovation and their application towards community development percolating to the grass root level. Anveshan: The Student Research Convention was applauded across the country for providing an innovative platform for students and generating a great zeal of enthusiasm among the young and emerging breed of researchers in the country. In toto, the initiative is an attempt to inculcate and strengthen the culture of research in the universities and other institutions of Higher Learning.



Objectives

- To identify young talents with research aptitude and interest to take up research as career option.
- To promote the talent in research throughout the country.
- To nurture the talent through specialized training and education in some of the nationally and internationally reputed premier institutions of higher learning in the country.
- To augment financial and physical resources through collaboration with different sponsors for supporting education and training of the young researchers.
- To provide proper incentives to enhance the research skill of potential students.
- To initiate an intensive research culture in the universities and institutions.

Categories/Areas/Fields

The areas/fields in which Projects (Individual and Group Projects*) are invited:

- Agriculture
- Basic Sciences
- Engineering & Technology
- Health Sciences and Allied Subjects, Pharmacy, Nutrition, etc.
- Social Sciences, Humanities, Commerce and Law (Objective and Result Oriented Projects)

* In case of a Group project, only three members (one principal investigator and two major contributors) are allowed to participate in the Zonal/ National Convention.

Nature of the Project

- Projects on the above mentioned areas must be original and must have undergone some exploration/ ground work in order to show its feasibility and impact.

Programme Structure

- The Conventions are held in three phases.
 - i. In the First Phase, all universities in the country are requested to organize an exhibition of research projects at University Level in which students from

Affiliated/Constituent Colleges, Research Institutions and University Teaching Departments are invited to participate and contest. The exhibited projects are scrutinized by a team of experts of their respective areas and the best five projects are selected for participation in the second phase.

- ii. In the Second Phase, the Convention is held at Zonal Levels in five Zones viz. East, West, North, South and Central where the winners of first phase participate. The zonal distribution of universities is displayed on AIU Website – www.aiuweb.org. In each Zone, one university is identified on the basis of certain criteria and the responsibility to conduct the Convention is assigned to it. From each zone, 15 best projects, three in each category are scrutinized on the basis of laid down assessment criteria for giving entry to compete at the National Level.
 - iii. In the Third Phase, the Convention is held at National Level. The Association of Indian Universities invites the successful projects, selected through the zonal competition, for the national level competition. A total of 75 selected projects are displayed for assessment at the national level out of which 15 projects are finally selected for awards.
- The duration of the Convention is three days each at Zonal and National Level.

Number of Projects

- Each university is allowed to send a maximum number of five projects for the Zonal Level Student Research Convention preferably one each from each category. In case, the universities/ institutes do not offer courses/ programmes in all the categories/ areas/fields mentioned above, they can send total five projects from whichever category/area/field they have from amongst the above specified categories/ areas/fields. For Example, Agricultural Universities may send five projects from Agriculture Category itself.
- The selected projects duly countersigned and forwarded by the Head of the Organization must reach the Coordinator of the host university in each Zone by the stipulated date every year which is intimated to the universities and also displayed on AIU Website : www.aiuweb.org .
- The projects are assessed by a panel of experts drawn from various disciplines on the basis of laid down criteria for assessment. The students whose projects are selected in the final stage at National Level Convention are given awards by AIU in terms of Trophies, Certificates and Gold Medals.



Awards & Incentives

Winners in the National Student Research Convention are awarded Cash Prizes along with Certificates and Mementos. The amount of Cash Prize* for first position holders is Rs 50,000/-, second position holder is Rs. 30,000/- and third position holder is Rs 20,000/-. The best research project across all the categories/ areas/fields is awarded Prof S K Mukherjee Gold Medal instituted by AIU in the memory of its former President late Prof S K Mukherjee. Award of consolation prizes is subject to the decision of the panel there and then.

* This amount of cash prize is for 2015-16. It is liable to change in other years.

Method of Assessment

- The Projects can be presented in the form of live demonstrations /models / posters/ podium (oral) presentation in any aforementioned categories/areas/fields.
- Assessment of projects is done in three rounds each at Zonal and National Level. In the first round, the contestants have to display their projects in poster presentations (Size of Posters - 1m X 1m) before a panel of judges. If selected in the first round, the projects will be allowed for the second round where the contestants have to make a podium (oral) presentation before the panel of Judges. In the third Round, the presentation will be open for question-answer.
- Total time allowed for podium(oral) presentation and question-answers is 10 Minutes; Seven Minutes for presentation and Three Minutes for question-answers.

Criteria for Assessment of Projects

All the projects are assessed on the basis of following criteria. Each criterion is assigned some weightage. The final selection of projects is based on the cumulative weightage given on all the criteria.

Criteria and Weightage

- | | |
|--------------------------------------|----|
| • Scientific Thoughts and Principles | 20 |
| • Creativity | 20 |
| • Thoroughness | 10 |
| • Skill | 10 |
| • Relevance | 20 |
| • Cost Effectiveness | 10 |
| • Teamwork | 10 |

Apart from the above criteria, Scope of Commercialization of the projects will be considered as an additional merit. However, there will be no weightage point for this criterion. In case of the projects having scored equal cumulative weightage point, this criterion will be considered for making the final decision.

Eligibility for Participation

Entries of the Research Projects are purely Institutional and only Bonafide Fulltime Students from Undergraduate to Doctoral Degree level, who are below 30 years of age, are eligible to take part in the Convention.

Procedure to Apply

The dates for conduct of the Convention are intimated to the universities and are displayed on AIU Website: www.aiuweb.org every year, as and when scheduled. Interested students need to apply for the first phase i.e University Level competition to their respective universities. Those students who are shortlisted in the first phase are eligible to apply for the Zonal Level Convention. Registration Proforma for Zonal Level Convention along with Guidelines for Participants is given at the end of this Monograph. Registration form duly filled in, and attached with Demand Draft of prescribed fee by the contestant and forwarded by the Competent Authority at the respective university is submitted to the Deputy Director, Research Division, Association of Indian Universities, New Delhi with a copy to the Coordinator of the Zonal Convention at Organizing University.

Entry/Registration Fee

Entry fee is Rs. 500/- (Per Contestant)* for Zonal Level Convention. The Registration has to be submitted through a Demand Draft payable to Association of Indian Universities, New Delhi.

There is no registration fee for National Level Convention.

* This amount of fee is for 2015-16. It is liable to change in other years.

Board and Lodging

At Zonal Level, the host university makes arrangement for accommodation, breakfast, lunch and dinner at reasonable rates on payment. Those requiring such facilities need to contact the Coordinator of the host university. Name and contact details of the Zonal and National Coordinators are displayed on AIU Website: www.aiuweb.org.



Responsibility of Organizers in Conduct of Zonal and National Level Conventions

Association of Indian Universities

- Identifying agencies for providing sponsorship to students selected and for conducting National Level Convention.
- Identifying universities for organizing the Zonal and National Level Conventions.
- Financial support to the host university. (AIU will pay Rs 2.00 lacs* as Seed Money to each University conducting the Convention at the Zonal Level and Rs. 2.50 lacs* to the university hosting the National level Convention).

*The given amount is for the year 2015-16. It is liable to change for other years.

- Signing MoU with sponsoring agencies.
- Coordinating the Convention and post Convention activities.
- Compiling and Bringing out the Compendium of Presented Research Projects.
- To attend to the queries* of the students/contestants and the universities, both participating as well as organizing universities.

*Queries be submitted through email: researchaiu@gmail.com or through Phone Numbers 011-23230059/23232429/23232305.Ext Nos 209 & 202. Fax 23232131.

Host University

- Sending circulars to affiliated colleges, constituent colleges and constituent departments under its jurisdiction inviting projects from the students.
- Arranging Board, lodging (on reasonable charges) and other logistics for participants, observers, AIU Officials, Adjudicators, etc.
- Making the required security and medical arrangements for any kind contingency.
- Local Coordination in organizing the three-day programme.
- Arranging the required infrastructural facilities like Display/Mounting Boards, Space for Display of Posters of Projects, Space for display of LCD/ overhead projector, etc., required for presentation. Making all the necessary arrangements for students presentations.
- Selection of Judges/Experts/Adjudicators: The panel of Judges/Experts/Adjudicators should have at least one very senior expert in each category/area/ field.



- Paying the Judges/Experts/Adjudicators, a token Honorarium of Rs 1000 (per day)* and the Travel Expenses from the seed money paid by AIU to the Host University.

* This amount of Honorarium is for 2015-16. It is liable to change in other years.

Acknowledgements

The inspiration and guidance received from Late Prof. Dayanand Dongaonkar, former Secretary General, Association of Indian Universities in the initial stage of preparation of the guidelines is gratefully acknowledged. I am thankful to Prof. Furqan Qamar, Secretary General, AIU for his encouragement and support in conducting the Research Conventions. The support and input received from the Dr. Bijayalakshmi Mishra, Dr. S. Rama Devi Pani, Dr. Usha Rai Negi and Dr. Fazlur Rehman in crystallizing the guidelines are also duly acknowledged.



Format of Registration Form for Zonal Level Competition

Name:

Father/Guardian's Name:

Name of the University/College/ Institute where studying:

(Please mention clearly if you are pursuing your study from University Teaching Department.)

If you are studying in a college/institute, please mention the Name of the University to which your college/institute is affiliated to:

Name of the Zone (East, West, North, South & Central)* :

*(Zone-wise list of universities is available on AIU Website: www.aiuweb.org)

Nomenclature of the Degree for which enrolled:

Subject/Discipline:

Year in which you are studying at present:

Permanent Address.....

.....

Address for Communication:

.....

Phone: (Off) (Res)..... (Mob).....

Fax..... E-mail:

Title of the Project:

Subject Area.....

Date of commencement & completion of the Project:

Application of the Outcome of the Project (if any).

Please mention briefly about the nature of application of the Project

.....

Whether the project has been sent for some other competition earlier? Yes/No

If Yes, mention place and date

Accommodation required: Yes / No

Date.....

Signature of Candidate

Forwarding from the University
(Signature with Seal of the Competent Authority)



Guidelines for the Participants

- Projects should be original and based on new/innovative ideas and must have undergone some exploration and ground work to prove its feasibility and show impact.
- The Projects are invited in Five Categories/Areas/Fields – i) Agriculture, ii) Basic Sciences, iii) Engineering & Technology, iv) Health Sciences and Allied Subjects, Pharmacy, Nutrition, etc. v) Social Sciences, Humanities, Commerce and Law (Objective and Result Oriented Projects).
- In case of a Group project, only three members (the Principal Investigator (PI) and two major contributors) are allowed to participate in the Zonal/ National Convention. But, only one member will be allowed for Podium Presentation.
- Entries of the research projects will be purely INSTITUTIONAL and only BONAFIDE fulltime Students/Research Scholars from Undergraduate to Doctoral Degree level are eligible to take part in the Convention.
- Entry Fee- Rs. 500/- (per student). The entry fee for zonal level competition in the form of Demand Draft drawn in favour of Association of Indian Universities, New Delhi and the Registration form should be sent to the Deputy Director, Research Division, Association of Indian Universities, New Delhi, with a copy to the Coordinator of the Organizing University). There is No Registration Fee for participating in National Level Convention.
- Registration is compulsory for all participants. The entries for projects in the Convention will be accepted only if forwarded through the Competent Authority, Head of the Institution. Format of the Registration Form for Participation in Zonal Level Convention is given in this Monograph. Candidates willing to participate in the Zonal Conventions may download the format.
- The Projects can be presented in the form of live demonstrations /models / posters/ podium (oral) presentation in any aforementioned categories/areas/fields.
- Each university is allowed to send a maximum number of five projects for the Zonal Level Student Research Convention.
- The duration of the Convention will be three days each at Zonal Level and National Level.
- The projects will be presented in three rounds. In the first round, the participants will display their projects in poster presentations (Size of Posters - 1m X 1m) before a panel of judges. If selected in the first round, the project will be allowed for podium and oral presentation before the panel of Judges. Adjudicators in the second round.



In the third Round the presentation will be open for question-answer.

- The host university will provide the required infrastructural facilities like Display/ Mounting Boards, space for display, LCD/ overhead projector, etc., required for presentation. In case any special assistance is required the participants may request the Coordinator of the host university for the same at least three days before the Convention starts.
- Total time allowed for Podium(Oral) Presentation is Seven Minutes and question-answer is Three Minutes.
- The host University will provide accommodation and working lunch to the participants and their team members (not more than three) with reasonable charges. The host University will provide Breakfast and Dinner, etc on charges at reasonable/nominal rate.
- Certification of Participation and mementoes with endorsement of both AIU and Host University will be issued to all the participants.
- Unless extraordinary circumstance so warrants the results of the competitions will be declared on the last day of the Convention preferably in the valediction.
- Winning Projects at Zonal Convention will be invited for National Student Research Conventions as per the schedule decided by the Association of Indian Universities.
- Canvassing in any form shall be a disqualification.
- The decision of judges will be final and binding on all participants.
- In case of any dispute relating to selection and assessment of Projects the appellate authority is the Secretary General, AIU.



