11. Research and Development (R&D) Policy

1. Introduction

Improving high – quality scientific research is a necessary requirement for creating successful applications. The objective of Research & Development (R&D) initiatives undertaken by Aditya Engineering College (AEC) is to build research careers, internationalization of human potential, support to strengthen the knowledge foundation and promote the creation of new applications, as well as societal impact of education, research and innovation. All education, research and innovation of this Institute aims to be of a high standard. The goal of creating technological and social innovation has emerged alongside R&D –based activities.

To achieve the high-quality research ambience the following policies have been undertaken. A research development cell has been established that will prepare and implement the documents for development of research and development activities within the Institute.

2. Objectives

- Develop and enhance the Institute's research facilities. Motivate all faculties to pursue research in their respective areas of expertise.
- Protect and monetize the institute's intellectual property. Increase consultancy activities.
- The provision of research and development opportunities for academic staff to maintain enthusiasm, awareness of current scholarship and relevance in teaching and other institutional activities.
- Develop infrastructure conducive to promote the quality research.
- Identification of research priorities and monitor the quality research.
- Disbursement of institute research funds to researchers, both individually and in groups.
- Monitor the utilization of Research Funds to ensure that the funds are properly and formally accounted for.
- Monitor and enhance the quality of research programs, projects and the research infrastructure within the institute, including the training of research scholars.
- Foster the development of multi-disciplinary research endeavors across Faculties and departments. Monitor the research performance of individuals, groups to encourage excellence and productivity through maintaining a database of research and development activities.
- Oversee the application of the Code of Research Ethics for the responsible practice of research. To formulate incentive schemes for promoting research activities among faculty and students/scholars.
- Promote strategy building, durable partnerships and develop funding solutions with industries and research Institutions for steering, funding and cooperation.

3. Policy for Internal Research and Innovation Funding (Seed Money): Development Principles

- Funding will be long-term and allocated under transparent criteria.
- Long-term skills development requires a stable funding base: the diverse and strong technological and science base of this Autonomous Institute will be safeguarded.
- Funding to promote the application, introduction and commercialization.
- New and current resources to be directed towards the most important targets: strengths and selected priority fields; infrastructures; the research career system; internationalization.
- Research and innovation by individual departments will be activated through funding, with the aim of improving the ability to innovate through interdisciplinary research work.
- The funding basis for the Institute to be diversified; quantitative objectives and incentives to be set for international funding through steering committees.
- A larger share of the research funds will be used for strengthening the knowledge base and for research and innovation as well as cross-border cooperation.
- Expanding the funding base of research institutes will be necessary in the future

4. Approval of Research Proposals

- The design and methodology of research undertaken by a member of staff and student, who make use of research and subjects like people, human remains, other living beings and the environment, must be submitted to RAC for evaluation and approval, especially if legislation, professional councils or institutions affected by the research require it.

- When faculty and student hand over in research essays, mini-dissertations, dissertations and theses, they must declare that their research has complied with the Code of Research Ethics of the Institute.

5. Code of Research Ethics

The researchers have to follow the Code of Ethics as mentioned in "Code of Ethics for Research" policy.

5.1 Relationships with the Community

- Data or information shall be gathered and recorded in such a way that it can be made available at any time (after completion of the project) to other interested parties without undermining confidentiality.

- Researchers will judiciously consider potentially destructive consequences of their research activities, outcomes or outputs on the human or natural environments and will avoid such research projects, or assiduously reduce the risk of such consequences through their research activities.

- Researchers will exercise their rights to academic freedom and freedom of scientific research, researchers are accountable to the community for the way in which they exercise those rights.

5.2 Relationships with Sponsors

- The methods, contents and results of research that has been funded (fully or partially) by external funds, shall be fully disclosed. Full particulars of the person or institution from outside the institute who funded the research shall be provided in the published results of the research.

- Researchers shall be honest with sponsors of their research about their qualifications and their research expertise and skills. Researchers shall ensure that sponsors require nothing of their research that is contrary with internationally acknowledged standards for ethical research.

- Researchers shall only utilize a sponsor's funds for purposes explicitly approved by the sponsor.

5.3 Relationships with Research Participants and Research Objects

- Researchers shall, at all times, respect research participants' right to freedom, dignity, privacy and bodily and psychological integrity.

- Researchers shall treat non-human living beings with care, respect and awareness of their vulnerability and defenseless-ness

- Researchers shall undertake research in a manner that does the environment no harm and that creates no additional environmental stress.

- Researchers shall undertake to carry out biohazard waste disposal as per established norms and practices.

- Researchers may use people as participants of research only if they have given their proven informed consent for their participation in the research, or, in the case of persons younger than eighteen years, if their guardians have given such informed consent and also observe confidentiality.

5.4 Policy for organizing/attending in house seminar/conference/workshop related to R&D:

5.4.1 Criteria for facilitating Professional Development Programs for the Faculty

Eligible Employees
- AEC employees (excluding employees on leave without pay) with a regular full-time appointment are eligible employees.

Criteria for Funding
- The Institute encourages faculty members to participate in conferences, seminars, symposia, FDPs, workshops and training programs etc. The Institute also provides seed money to organize conferences, workshops, training programs etc. to all academic departments. For availing the same, the Institute provides the following guidelines and norms for associated support and paid leave for official purposes within or outside the country. Approval of

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competent authority is required to undertake any national/International travel for attending conferences/workshops.
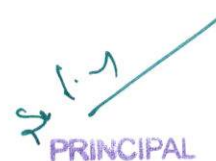
- Institute provides full/partial financial support and paid leaves for international/national travel requirements of its faculty from its own resources for attending conferences/seminars/ workshops, in which the faculty member has to make an oral presentation (invited talk, paper, or poster).
- The faculty member must apply for such travel grant/registration fees on the prescribed form.
- The research paper/poster accepted for presentation/talk should be with Institute affiliation.
- Funding may cover the registration fee, actual travel cost, boarding/lodging.
- The most expeditious and minimal travel cost mode of travel should be used.
- Boarding/lodging expenses will be paid on production of receipt, as per Institute norms.
- The total amount as per approval shall be reimbursed after the applicant submits an incentive form for the conference and forwards the same through the Institute in same financial year.
- Faculty members financially supported for registering in various professional membership bodies.

Application Procedures

- The College pre-approves requests for financial support for development activities only. The college does not normally approve funding requests retroactively.
- Requests for leave to participate in a professional activity must be obtained by the applicant from the Principal through their respective Head of the Department.
- Completed applications are to be submitted to the Principal's office at least one week prior to the event.
- Completed applications are considered on a first come first serve basis. Applications will be date stamped upon receipt and reviewed for completeness.

Cancellation

- Employees can request to withdraw their application and/or approved funding by writing to the Dean (R&D) after obtaining approval from Head of the Department.
- Employees cannot use previously approved funding for a different purpose. Employees who do not attend the professional development event for which they have received approved funding must repay the money, which will also make ineligible for future internal grants.

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R &D Incentive Policy applicable from 1st July, 2022

This document presents the research incentives that are going to be issued by the Management for faculty publications, patents, funded projects and consultancy works and its implementation policy. The new incentive policy will be implemented from 1st July, 2022.

Publications:

International Journal with IF > 8.1 **or H-Index** >225	: Rs. 30,000/-
International Journal 5.1< IF < 8 **or H-Index** 151< HI <225	: Rs. 25,000/-
International Journal 2.1< IF < 5 **or H-Index** 101< HI < 150	: Rs. 20,000/-
International Journal 0.5< IF < 2 **or H-Index**51< HI < 100	: Rs. 15,000/-
International Journal IF < 0.5 **or H-Index** HI <50	: Rs. 10,000/-
International Journals (Indexed by Scopus and ESCI)	: Rs. 10,000/-
International Journal (Scopus Indexed / WOS indexed)	: Rs. 7,500/-
Scopus Indexed International Conference Registration (Max.)	: Rs. 7,500/-
(Max. of 2 Conferences per year per faculty)	
Book Chapter indexed in Scopus	: Rs. 7,500/-
(Not through Conference, only direct submissions will be considered)	
National Conference Registration Fee (Max.)	: Rs. 4,000/-
UGC Indexed Journal (Only for English and Mgmt Studies)	: Rs. 2,000/-

Publishing Text Book

International Edition by top 20 Publishers in the world	: Rs. 20,000/-
Indian Edition	: Rs. 10,000/-
Book should meet the criteria mentioned in guidelines	
Publishing Book Chapters in Non Scopus Editions	: Pro rata basis
Publishing an article in a Magazine	: Rs. 2,000/-

Patents:

Publication of Patent	: Rs. 10,000/-
Grant of Patent	: Rs. 20,000/-

Note: Filing charges will be paid by the Management and Incentives will be given only if the Applicant is AEC. The above incentives are applicable only if the disclosure goes through detailed search process by Novel Patent's.

Patents filed by faculty keeping College Name as applicant	: Rs. 10,000/-
(It should reflect in the Derwent Database)	
Patents granted with examination	: Rs. 10,000/-
(It should reflect in the Derwent Database)	

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Funded Projects / Grants:

Award of Grant for Conf / Workshop / Seminar	:	5% of the Grant
Funded research project where equipment is not involved	:	10% of the Grant
Funded projects where equipment is involved	:	15% of the Grant
MODROBS (Amount > 5 Lakhs)	:	Rs. 25,000/-
MODROBS (Amount < 5 Lakhs)	:	Rs. 20,000/-

Note: Submission of application, follow up for getting the grant, carryout the project and submit utilization certificate should be done by the faculty.

Best Department of the Group:

Best Department	: Rs. 10,00,000/-

Fund will be utilized for enhancing the research facilities.

Best department will be identified based on Research Publications, Patents and Funded Projects, Consultancy works.

Mandatory Research Publications by Faculty per Year:

|	
Doctorate Faculty	: Minimum 1 article in Scopus indexed Journal and 1 article in Impact Factor Journals
Non-Doctorate Faculty	: Minimum 2 articles in Scopus indexed Journals

Guidelines for implementation:

- Impact Factor should be given by Thomson and Reuter / Clarivate

- The Text Book should have the content / quality to be recommended as reference book by any University or College for UG/PG program. (Single space format, Min. 200 Pages). Text Book may have chapter wise references (optional), preface, contents, ISBN Number and published by the standard publisher (Indian / International)

- Conference papers will be given registration fee up to Rs.7,500/-. Honorarium will not be paid. Book Chapters published through Conferences will not be eligible for honorarium. Book Chapters (in Taylor & Francis / Springer / Elsevier / any other reputed publisher) which are directly submitted to the editor are eligible for Honorarium of Rs.7,500/- after it is indexed in Scopus database.

- Faculty presenting papers in Scopus Indexed Conferences with a group of UG students will be paid registration fee.

- H- Index of Conference Proceedings will not be considered.

- International or National Conferences should be organized by NIT/ IIT/ Central or State University / Deemed University / Research Laboratories / Reputed Institutes with Autonomous Status with NAAC / NBA Accreditations.

- NAAS Score of the Journal will be considered in place of Scopus for the Publications made by the faculty of Agricultural Engineering Department. NAAS 4.0 and above will be treated on par with Scopus and NAAS 7.0 and above will be treated as IF Journal.

- Six Academic Leaves will be granted per year. Faculty can use these leaves for attending workshops / FDPs / RRMs / invited talks / Doctoral Review Committee as a resource person or any other academic related activities. Faculty will be allowed to attend one workshop/ FDP per year.

- Two days OD will be given for attending final Viva-voce examination of Ph. D. for the research scholars and one day OD will be given to the faculty (Guide) to attend to his research scholars Ph D Viva-voce.

- New awards have been constituted on the name of "Best Researcher Award", "Best Consultant Award", 'Highest Impact factor Journal in an year', "Best performing Department with respect to research".

- The "Best researcher of the College", "Best Consultant of the College" will be given a certificate and medal. Both number of consultancy works and amount earned will be taken in to consideration.

- Faculty who publishes paper with "highest impact factor in the year" will be given certificate and medal.
- Best Department with respect to research in Aditya Group of Engineering Colleges will be given Rs. 10 Lakhs for enhancing the research facilities

- Faculty can apply for seed money up to Rs.1 Lakh for minor projects and up to Rs. 15 Lakhs for major projects to carry out research with specific outcomes. Research Advisory Committee will scrutiny the proposal. Based on the recommendations of the committee, seed money will be disbursed in installments. Committee will review the progress every month. The applicants of the seed money will have to sign a bond to stay in the college for 3 years & give an assurance to achieve the outcomes as per the timelines. No incentive will be paid for the papers they produce based on the facility created with the seed money. Incentives will be paid as per the norms after meeting targets as per the timelines with research facility created.

- For the award of incentive, upto 5th author in any Journal / Conference paper will be considered. For meeting the research target also, the same rule is applicable.

- One paper must be claimed by one faculty only as a part of the research targets. No two persons should claim the same paper / publication.
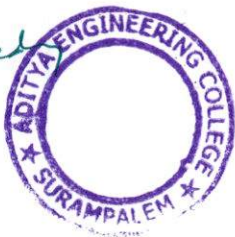
Consultancy Projects

- To encourage consultancy work from the faculty, AEC announces a policy wherein the faculty can claim 100% of the amount charged under the consultancy work up to Rs. 5 Lakhs. This is subject to the following conditions:

  o Aditya faculty alone should be the sole Principal Investigator (PI) of the consultancy work and he should get the project on his own without taking any support from the Institute.
  o The said consultancy work should be undertaken after the approval of the Head of the Institute and the agreement should be undertaken between AEC and the concerned third party.
  o The payment for the consultancy work should be credited to AEC which will further be passed on to the faculty as 100% Incentive.

- The expenses incurred for project personnel / technician, contingencies, travel, consumables, stay, food, overheads and other costs should be borne from the consultancy amount. Institute will consider the time spent for attending the project as on duty (OD) and pays full salary to support consultancy work. The PI will be permitted to take up the project which can be carried out at Campus or at client location.

- The faculty will be eligible for 75% of the revenue generated after deducting all the expenses from consultancy amount, if the total value of consultancy amount is above Rs. 5 Lakh.

- If any equipment or infrastructure is needed for executing any consultancy project, the decision for the purchase or lease for the same will be decided based on approval/suggestions from the R&D committee and Head of the Institute. The Incentive rules for such kind of projects will be separate and will be decided during the pre-approval meeting with the Head of the Institute.

- If any consultancy project is executed with the equipment or facility sponsored by the Institute through its R&D seed grant or other funds, the Principal Investigator will be paid 50% of the revenue generated through the project after deducting all the expenses incurred as mentioned in 1(d).

- If a Consultancy project is assigned to any faculty from the Institute or with the support of the Institute, the Principal Investigator will be paid 40% of the revenue generated through the project as incentive after deducting all the expenses incurred as mentioned in 1(d) by the Institute. 60% of the revenue retained by the college will be used for the development of the concerned laboratory or department infrastructure.

- The consultancy works in which faculty receives 100% of the generated revenue as incentive, will be considered as research and development activity and is not counted for appraisal or for any other incentive.

- The maximum number of 6 working days will be allowed for attending consultancy project at client location within India on OD. Extension beyond this period has to be approved by the Head of the institute with prior notice of 2 working days.

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