# R&D POLICY

# R&D Policy

**R&D Cell**
**Anjuman College of**
**Engineering and Technology, Nagpur**

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# 1. Introduction

We at Anjuman College of Engineering and Technology strongly believe that our service is to spread knowledge through teaching and create new knowledge through research.

**AIM**:

To promote a research culture amongst the faculty members and students along with necessary support facilities

**OBJECTIVE:**

1. To cultivate strong research culture amongst faculty members and students.
2. To embed research in all levels of academic activity (undergraduate, postgraduate and PhD).
3. To increase the quantity and quality of our research outcomes.
4. To increase the sources of external research funding in order to build capacity, create new knowledge and research quality.

## The Roles and Responsibilities of R&D cell are:

**Role:**

- Role of R & D cell to enhance research culture
- To promote Academic Research in the college with faculties and students
- To preserve the Code of ethics of the college while publishing
- To help the faculty in applying for funds in the form of sponsored research / grants from government and non government agencies

**Responsibilities:**

- To prepare annual research activity plan for all the departments.
- To initiate and promote MoU with industries and R&D organizations for consultancy, collaborative research, sponsored projects, industry and Institute interactions etc.
- To arrange brainstorming sessions through talks by eminent personalities from industry, R& D organizations and institutions of repute for the better understanding of research methodology and practices currently followed.
- To keep everyone informed about announcements by various funding agencies like DST, DRDO, SERB, CSIR, AICTE, UGC, IEI and University etc.

- To motivate students for presenting papers in National and International conferences and projects in competitions and exhibitions at university level. Interdepartmental / collaborative work to be encouraged.

As regards institute policy towards accomplishing above stated tasks the policy comprises following issues (i) Short Term Goals (ii) Long term goals

### Short term goals (2 years):

1) To conduct value added training program in the institute
2) To increase submission of number of funding proposal
3) To arrange International conference/ FDP/STTP (funded if possible)
4) To monitor progress of the research and development activity.

### Long term goals (5 years):

1. To enhance Quality publications like SCI/Scopus significantly
2. To depute senior faculty to various research organizations for getting collaborative project and adopting best practices
3. To increase the funding in a crores

Following document viz. R&D Policy is the collection of all the policies which are constituted for achieving our aims and objectives. The management reserves the right to take a decision over and above the R&D policy in special cases, in the interest of institute.

# General R & D Guidelines

## 2. Academic Research Quality:

### 2. A. Institute

1. To create atmosphere among the staff members to take up Research projects and improve their knowledge, skills and qualifications by registering PhD's

2. To assist for applying and getting funds for conducting Seminar/Workshop/FDP from various available funding agencies

3. To facilitate the growth of research activity among the academic community by paying rewards

### 2. B Department:

**2. B.1** Two patent applications must be filed from each Department per year.

**2. B.2** One International/National conference (minimum) must be organized each year, by Department wise rotation in collaboration with R & D Cell.

**2. B.3** It is mandatory for all departments to submit at least two proposals (STTP/RPS/FDP etc.) per year to any external funding agency like DST, DRDO, SERB, CSIR, AICTE, UGC, IEI and University etc.

**2. B.4** Department must sign two MoU with industry /academic/institute/research etc.

### 2. C Faculties:

**2. C.1** Each Professor should publish at least two research papers/year in SCI/Scopus/WoS journal/ conference by mentioning the affiliation of the institute in each academic session. The acceptance for the publication will also be considered.

**2. C.2** Each Associate Professor should publish at least one research paper/year in SCI/Scopus/WoS journal/conference by mentioning the affiliation of the institute. The acceptance for the publication will also be considered.

**2. C.3** Each Assistant Professor should publish at least one research paper/year in SCI/Scopus/WoS/ journal/conference/ UGC approved journal as first author by mentioning the affiliation of the institute. The acceptance for the publication will also be considered.

**2. C.4** Faculty member with Ph.D. degree must apply for an external funding per year

**2. C.5** Faculty member should identify suitable industries and try for a possible funding from them with a mutual understanding of the problem statement.

**2. C.6** Faculty member must file a patent in every two year

## 2. D   Students:

### 2. D.1   Publications by PhD Scholars:

2. D.1.1 Each scholar should publish one research papers in SCI/Scopus (none paid) journal by mentioning the affiliation of the institute. The acceptance for the publication will also be considered.

2. D.1.2 Each scholar must apply for external funding

### 2. D.2   Publications by PG Students:

2. D.2.1 Each M. Tech student should publish two research papers in UGC approved Journal / Scopus conference by mentioning the affiliation of the institute.

### 2. D.3   Publications by UG Students:

2. D.3.1 Each project group of B. Tech students should publish at least one research paper in UGC approved journal/International/national conference by monitoring the affiliation of the institute.)

Scholars/Student may apply for IPRs on projects carried out during their stay in ACET.

# 3. Research Policy:

## 3.1 External Funding for Research:

3.1.1 It is mandatory for all departments to submit research proposals per year to any external funding agency like DST, DRDO, SERB, CSIR, AICTE, UGC, IEI and University etc.

## 3.2 Institute Funding for Research:

### 3.2.1 R &D Fund for Departments:

3.2.1.1 The annual departmental R&D fund allocated to every department every year may be utilized for departmental R&D activities such as research oriented UG / PG/ PhD projects, for conducting Guest Lectures and professional chapter activities etc.

3.2.1.2 50% fund will be sanctioned to UG / PG/ PhD project by the institute, if it is fully development and useful to the institute and 25% funds will be sanctioned if it is to be partially useful for the institute.

3.2.1.3 The registration fees required for establishing professional chapters, like ISTE, SAE, IEEE etc. minimum number of student registration for the chapter should be borne by the institute on first come first serve basic for student registration.

**Note:** Not more than two chapters per department will avail the above facility.

3.2.1.4 The internal funding to UG / PG/ PhD projects will be decided by respective HOD and their departmental project funding committee.

## 3.3 Research Schemes for STTP/FDP/Symposia/Conference/Workshop/Seminar:

To promote state-of-art research in the field of Science and Technology, faculty members of the institute are encouraged to submit proposals to State and Central government schemes on a timely basis depending on the eligibility of the Department. In addition to external funding, the institute will also partially/fully support some of the programs to individual Departments. In this regard faculty members are also encouraged to invite experts from IITs, NITs, Organizations from Institute of Eminence, Central and State Universities and Industry. For internal funding, an individual faculty should route the proposal through HOD to Principal and then to R & D Cell.

### 3.4. Research Publications in National and International Journals/ Conferences/ Books/Book Chapters/ IPR

#### 3.4.1 Journal Publications (National and International)

As the publication of papers in journals is of utmost importance, faculty members are encouraged to publish papers indexed in the following indexing tools.

Science Citation Index (SCI), Web of Science (Q1, Q2, Q3, Q4 Journals)

- Science Citation Index Expanded (SCIE)
- Social Science Citation Index (SSCI)
- Arts and Humanities Citation Index (AHCI)
- Emerging Source Citation Index (ESCI)
- UGC care

#### 3.4.2. Conference Publications (National and International)

Faculty members are encouraged to submit and present their research work to reputed National and International Conferences organized by Institutes with NIRF 150 rank.

#### 3.4.3. Books and Book Chapters

Contributing to a book or a book chapter is indeed a great achievement to an individual faculty and Institute as well. Hence all faculty members are encouraged to initiate this process to contribute to a book or a book chapter of reputed publishers.

#### 3.4.4 Patents/IPR

Faculty members can apply and obtain patents for their contribution in the form of a product, innovation, technology, etc. from National and International agencies.

# 4. Intellectual Property (IP):

## 4.1 Ownership:

4.1.1 All IPs should be filed through IPR Cell only. The application shall be a joint application in which first applicant, and hence the owner, shall be the institute, whereas the second applicant shall be inventor/s (viz. faculty member/staff/student/alumnus of institute). The names of the inventors (students, staff members, research scholars or collaborating faculty members) from other institutes may also be included under inventors of the patent.

## 4.2 Revenue Sharing:

4.2.1 The revenues generated through technology transfer or licensing of the patent shall be shared by the institute and Inventors. The ratio of revenue sharing (after deducting processing and other expenses) shall be decided mutually and governed by a separate agreement between institute and the inventors.

## 4.3 Incentives:

4.3.1 Incentives shall be applicable as per the Research Incentive

## 4.4 Awards for Patents filed by the students:

4.4.1 At the end of every calendar year, a patent review committee (IPR Cell) shall review all the patents filled in that year. The Patent review committee shall honor the students by giving awards selected by the committee.

## 4.5 Cost of Protecting the IPRs:

4.5.1 The fees for obtaining copyright shall be paid by institute.

## 5. Research Incentive:

### 5.1 Incentives for Publications in Journals:

5.1.1 Incentives shall be applicable to papers which are published in **non paid** journals indexed by ICI (Indian citation index)/Scopus/SCI (Science citation index)/ WoS (Web of science).

5.1.2 The incentives shall be applicable to only those papers where the author's affiliation is **'Anjuman College of Engineering and Technology'**.

5.1.3 In case of multiple authors, including students, in the same paper from institute, the incentive shall be shared equally by all the authors.

5.1.4 Incentive of Rs.3,000/- for paper published in journals indexed by ICI

5.1.5 Incentive of Rs.5,000/- for paper published in journals indexed by SCOPUS

5.1.6 Incentive of Rs.6,000/- for paper published in journals indexed by ESCI and AHCI

5.1.6 Incentive of Rs.8,000/- for paper published in journals indexed by SCI, SCIE and SSCI

5.1.7 Incentives will not be applicable for the paper published in conference proceedings or journals where a conference proceeding is uploaded.
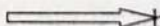
**Evaluation Process for authentication of Journal**

**Journal Status: - Indian Citation Index**
ICI ⟹ http://www.indiancitationindex.com

**Journal Status: - Web of Science**
SCI, SCIE, SSCI and A&HCI indexed journal ⟹ https://mjl.clarivate.com

**Journal Status: - Scopus**
Scopus indexed journal ⟹ https://www.scopus.com

### 5.2 Incentives for attending Conference/ Workshop/ STTP/FDP/Seminars/Training in India:

5.2.1 **Paper Presentation at Conference:** The University approved faculty members of institute shall be eligible for 100% sponsorship in the form of registration fees only for conferences proceedings indexed in Scopus/SCI/WoS. Faculties attending the **Workshop/ STTP/FDP/Seminars/Training** organized at IIT, IIIT, NITTTR, IISC, NITs, institute of eminence and other reputed Institutes / Universities consistently ranked among top 150 in NIRF only shall be eligible for registration fee. Travel allowance w i t h to & Fro

actual Rail fare by AC III tier to Associate professor and Professor and sleeper class to Assistant Professor, to the nearest rail head and / or Bus fare up to the venue of the conference and duty leave as per norms will be applicable for same.

- Each faculty member will get funding for presenting paper in conference once in every year.
- Each faculty member will get Incentives for attending Workshop/ STTP/FDP/Seminars/Training in two year.

**5.2.2 AICTE / MOE (Ministry of Education) / TEQIP approved Workshop/ STTP/FDP/Seminars/Training in India:** Full registration fees and Travel allowance as per 5.2.1 & duty leave will be granted as per 5.2.4.

**5.2.3 AICTE / MOE (Ministry of Education) / TEQIP approved Workshop/ STTP/FDP/Seminars/Training within the City:** Full registration fees and duty leave as per 5.2.1 & 5.2.4 will be granted.

**5.2.4** Duty leave will granted from one day prior to the event and one day after the event. For ex. If the conference is organized at Bangalore and its duration is of 2 days then OD of 1+2+1=4 (Four) days will be granted. Any other kind of leaves like CL / EL can be attached to the OD.

## 5.3 Incentives for presenting paper in Conference abroad:

5.3.1 The University approved faculty members of institute shall be eligible for duty leave (Maximum one week) and amount Rs.40,000/- (Rupees forty thousand only) (including registration fees + TA + Miscellaneous).

5.3.2 In case approved faculty member receives grant from external organizations like DST, DRDO, SERB, CSIR, AICTE, UGC, IEI and University etc. then the funds for attending the same will be bourn through external funding agencies.

5.3.3 The faculty member availing of this incentive has to submit the proposal to the Principal at least two months in advance from the last date of registration of the conference.

It is mandatory for the faculty member availing the sponsorship for conference abroad to submit Travel Grant application to at least one external funding agency i.e. AICTE/DST/SERB etc. before applying to the college for the same.

For presentation of research papers in conferences abroad, the University approved faculty members of institute shall be eligible to attend one conference in every two years ,concerned head of department must ensure that not more than two faculty members in one

calendar year is permitted to attend such type of conferences abroad. Conference proceeding must be indexed in Scopus/SCI/WoS.

**5.4 Incentives for Research/ FDPs/STTP/Training Programmes, funding from any government/ Non government agencies:** Incentives will be applicable for grant received more than a lakh.

| Incentive for external funding | | | |
|---|---|---|---|
| Sr. no | Category | To whom | Incentives |
| 1 | Financial grants received from external funding agency such as DST, DRDO, SERB, CSIR, AICTE, UGC, IEI and University etc. | Principal Investigation | 1 Percentage on grants |
| | | Co-Principal Investigation | 0.5 Percentage on grants |

**5.5  Incentives for Patents:**

5.5.1   Incentives shall be applicable to patents which are filed by the inventors with the name of college under affiliation section.

5.5.2   Incentives for each granted patent shall be Rs. 10,000/-

5.5.3   Fees for filing patent and examination fees of patent shall be borne by the institute upon submission of fees receipts of patent office.  Maximum 10 patents will be considered by the institute in one calendar year and on first come first serve basis.

**5.6    Incentives for Book Publication & Book Chapter**

**5.6.1   International Book Publication & Book Chapter:**

5.6.1.1 Incentives shall be applicable to regular faculty of institute, if books are published in internationally reputed book publisher.

5.6.1.2 Incentives for author/authors shall be Rs. 7,000/- per publication, book publication from own discipline

5.6.1.3 Incentives for author/authors shall be Rs. 4000/- per chapter, chapter publication from own discipline

### 5.6.2 National Book Publication & Book & Book Chapter:

5.6.2.1 Incentives shall be applicable to regular faculty of institute, if books are published in nationally reputed book publisher.

5.6.2.2 Incentives for author/authors shall be Rs. 4,000/- per publication, book publication from own discipline

5.6.2.3 Incentives for author/authors shall be Rs. 2000/- per chapter, chapter publication from own discipline

### 5.7 Incentives for award

5.7.1 Incentives shall be applicable to regular faculty of institute, if he/she received award from Government organization, no processing fee will be paid by the college.

5.7.2 Incentives for the award is Rs 5000/-

5.7.3 Incentives shall be applicable to student's group/individual if they received award/cash prize as Ist position from any project competition/ technical event

5.7.4 Incentives for project competition/ technical event is Rs 2000/-

*All incentive amounts will be disbursed after successful submission of bills/utilization certificate/after settlement of amount from the concerned authority/organization.*

## 6. Consultancy Policy

**Introduction**

To extend the scientific research knowledge of faculty for the benefit of industry, consultancy is one of the methods. The institute support and encourage the faculty in taking up consultancy (and testing) work that have elements of industrial problems solving. Relevant consultancy project will not only provide much needed service to the industry but also benefit the concerned faculty members and the Institute in several ways. It enriches the professional experience and knowledge of faculty members and thus makes them better educators. Consultancy projects provide a first-hand knowledge of the current problems of industry, which is very helpful in tuning the curriculum to the national needs. The faculty members get an opportunity to apply their innovative ideas to practical situations. Furthermore, the consultancy work provides incentives to all categories of staff for their contribution.

6.1 The project consultancy is classified as

(1) Type I consultancy project: Consultancy Projects which do not require laboratory facilities of the Departments/Institute will be classified as Type-I Consultancy Projects.

(2) Type II consultancy project: Consultancy Projects involving use of laboratory facilities of the Departments/Institute will be classified as Type-II Consultancy Projects. Such projects will cover testing, measurements, calibration of equipment/ instruments and testing of materials /equipment in laboratory, field testing and measurement and research and development work using laboratory facilities, as a part of that consultancy project.

6.2 Distribution of funds: After meeting all the expenses, following is the sharing pattern from consultancy work,

**(1) Consultancy Type- I:**

a) Amount to institute will be 30% of the remaining amount after meeting all the expenses.

b) Amount shared by the team involved with the work including supporting staff is 70% of the remaining amount after meeting all the expenses.

**(2) Consultancy Type- II:**

a) Amount to institute will be 50% of the remaining amount after meeting all the expenses.

b) Amount shared by the team involved with the work including supporting staff is 50% of the remaining amount after meeting all the expenses.

A. It is recognized that the consultancy leads to increased knowledge and capabilities of the concerned faculty member. Therefore each such consultant will be given free time of at least one day per week to conduct such assignments by adjusting the academic schedule.

# 7. Norms for Pursuing Higher Studies:

## 7.1 PhD:

7.1.1 The University approved faculty member of the institute may be allowed to pursue Part-Time PhD at Institute/University

7.1.2 The University approved faculty members of institute those are pursuing Part-Time PhD at afore mentioned Institutes/Universities may get duty leave whenever applicable. Maximum duty leave permitted in one calendar year will be 12.

7.1.3 The University approved faculty members of institute those are pursuing full time PhD, at afore mentioned Institutes/Universities may get lien as per norms (Management reserve rights in this regards.)

# 8. Faculty Recognition:

## 8.1 Research Awards:

8.1.1 Appreciation certificates and memento for different awards in different competitions securing first position must be given by respective departments.

8.1.2 For UG, PG and PhD projects for securing first, second or third position in outside shall be honored with certificates & mementos by the institute.

8.1.3 Any type of funding for institute (PI & team) for scheme like, PRERANA Scheme, RPS/STTP/FDP etc. sponsored by AICTE or any other government agencies & non government agencies, certificates and mementos shall be provided to the concerned team by the institute.

# 9. Institute Affiliation in Publications:

## 9.1 Purpose:

9.1.1 This policy is designed to ensure the correct and consistent use of our institute affiliation in research outputs. This will ensure that the college receives the academic prestige and acknowledgement in citations of the publication by other authors, which contributes to bibliometric assessment of the institute research outputs.

9.1.2 The policy applies to all faculty members and students whose research outputs derive from the use of institute resources and facilities during their tenure in the institute.

## 9.2 Policy:

9.2.1 All institute authors must cite Anjuman College of Engineering and Technology as their affiliation in research articles, conference papers and other publications, irrespective of whether the affiliation actually appears in the publication or not.

9.2.2 Wherever possible, depending upon the required style of the publication, Anjuman College of Engineering and Technology' should appear as the first element in recording affiliation. Other elements such as Department, Designation can be listed as second or third element, as appropriate. Listing of college name first ensures that the college receives credit. Where this is not possible, college name must appear prominently and in any event not later than the third element within the citation. Otherwise, there is a risk that the institute will not be credited in any external machine-readable analysis of bibliometric data.
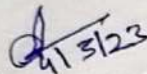
9.2.3 The institute name must be correctly spelled out in full (Anjuman College of Engineering and Technology, Nagpur). The use of the acronyms is not permitted in publications,

nor is any other form of abbreviation of the college's name 'and' in the college name should not be spelled as '&".
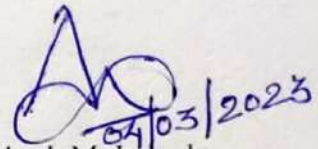
9.2.4 All the privileges and benefits such as incentives, sponsorships, duty leaves, reimbursements, etc. shall be applicable only if the college affiliation is mentioned in the publication as per this policy.

9.2.5 Incentives will be granted to faculties depending upon the financial condition of the institute.

9.2.6 Review of research policy from head and all faculties will be taken after every six months by the Principal and Dean R&D.
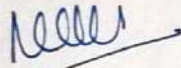

Dr .Ravindra N .Dehankar
**Associate Dean (R&D)**
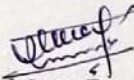
Dr Akash M. Langde
**Dean (R&D)**
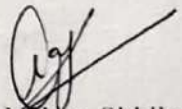
**Research & Development committee members**

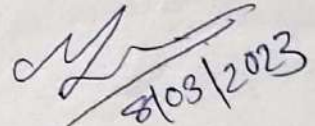Dr. Namrata Lotia
**ME dept**
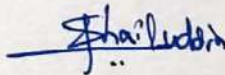
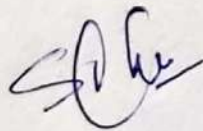Prof. Itrat Fatema
**CMPS**

Prof. Najma Siddiqui
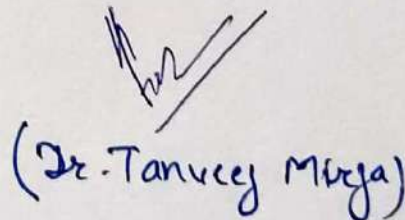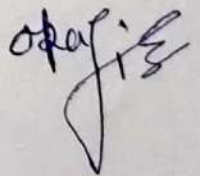**EXPO dept**

Prof. Akbar Nagani
**EXTC dept**

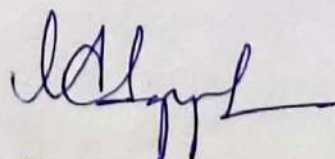Prof. S. Sohailuddin
**Civil dept**

Dr. Nitu Gupta
**S & H dept**

(Dr .Tanveej Mirja)

Dr. SYED MOHAMMAD ALI
**Principal**
Anjuman College of Engineering
& Technology, Sadar, Nagpur.