

# **B.M.S. COLLEGE OF ENGINEERING**

Autonomous Institute Affiliated to VTU

# RESEARCH PROMOTION POLICY & INTELLECTUAL PROPERTY RIGHTS (IPR) POLICY

(Ref: Resolution of BOG dated 13.02.2023)



#### **Research Promotion Policy**

B.M.S. College of Engineering is committed to promoting scientific temper and research aptitudes among teachers, research scholars and students. The research policy aims to realize the vision and mission of the college by contributing in areas of academic, practical and socially relevant significance. It also aims at ensuring that the research activities conform to the safe and ethical conduct of research. The College is committed to provide required monetary and infrastructural support towards promotion of research and building a strong research ecosystem.

#### **ABOUT THE INSTITUTION**

VISION	Promoting Prosperity of mankind by augmenting human resource capital through quality Technical Education and Training
MISSION	Accomplish Excellence in the field of Technical Education through Education, Research and Service needs of Society

B.M.S. College of Engineering (BMSCE) Bengaluru has the unique distinction of being the first private engineering college established in the country. Started in the year 1946, the institution owes its existence to the vision of its beloved founders, Late Sri. B. M. Sreenivasaiah and his illustrious son Late Sri. B. S. Narayan. Over the past 75 years, BMSCE has produced more than 40,000 graduates who have enriched the world through their immense contributions as engineers or leaders for mankind. BMSCE is approved as QIP Centre in Engineering & Technology by AICTE. Currently all the UG Programmes offered by the institution hold the status of Accreditation from NBA, New Delhi in tier I Format. The College is accredited by National Assessment and Accreditation Council (NAAC) with the highest grade of A++ in the Second Cycle and a CGPA of 3.83 on a scale of four. AICTE has recognized the college under National Doctoral Fellowship Scheme (NDF) during 2018-19. The College became autonomous, UGC approved, in 2008 and has been effectively practicing Outcomesbased Education. BMSCE is listed as a lead innovator for the year 2020 and 2021 by



Clarivate Analytics (Web of Science) based on the Derwent World Patent Index. In the ARIIA (ATAL Rankings) 2021, the college was ranked in band-Excellent. TEQIP Institution (World Bank Project); Best performance rating in all three Phases. The College offers 17 Undergraduate & 14 Postgraduate courses both in conventional and emerging areas. More than 350 research scholars are pursuing their PhD Degree in the 15 research centres of the college. 200+ PhDs and 22 M.Sc. (by research) have been produced so far through these research centres. Qualified and experienced faculty & staff & good Faculty/Staff retention rate. The Institution has MOUs with various organizations. It has developed many Centres of Excellence, cutting edge laboratories and incubation centres in collaboration with industries with an aim to enrich the learning experiences of the graduating students and to comply with the programme outcomes. The learning experiences and quality educational practices created at the institute supplemented with academic ambience, state of the art infrastructure, pedagogy, academic innovations, research, incubation, training opportunities and entrepreneurship provided to diverse student population is enabling the institute to produce graduates who are industry ready.

#### **Research Committee**

Research committee consists of the following members.

1. Principal - Chairman

2. Vice Principal (Academic) - Member

3. Vice Principal (Administration) - Member

4. Faculty representative (09 Members) - Member

5. Head R&D - Convener



#### **Roles and Responsibilities of the Committee**

- ❖ To monitor smooth and efficient co-ordination of research activities in the Institution
- ❖ To Identify new Research avenues and Opportunities
- ❖ To instill measures to enhance research outcomes in terms of quality research publications, Research Projects/ grants, Patents, Collaborations, Doctoral program and Faculty development.
- ❖ To identify potential collaborators and to facilitate collaborations with researchers from premier Institutions to encourage joint research venture in the latest technology.
- ❖ To propose augmentation of Research infrastructure and establish necessary support system for utilization of facilities.
- Conducting SWOC Analysis of past research in the Institution
- ❖ To develop an Institutional Research Information System for sharing the status of ongoing/ completed research projects/Programmes, expertise & resources, etc.

#### **Institutional Research Promotional Measures**

#### 1. A. Award of cash incentives for research publication

- ❖ For Journals in Web of Science but not in JCR (SNo 5) each faculty is eligible to claim only once in a financial year for a maximum of three years irrespective of the number of publications in that category.
- ❖ The incentive claim form to be submitted to R&D office within one month of publication (online) for processing.
- ❖ The incentive will be processed based on the available rank in the Web of Science JCR at the time of the claim.
- ❖ The conference publications converted to Journals shall not be considered.
- ❖ The quality-wise award of cash incentive for research paper published in Web of Science JCR journals is shown below:



# 1. B. Award of cash incentives for research publication by faculty members in Management studies

- ❖ The incentive scheme is applicable for the faculty members from the department of Management studies and research.
- ❖ The incentive claim form to be submitted to R&D office within one month of publication (online)
- \* Ratings in the latest ADBC quality journals list will be considered.
- ❖ The conferences/other articles converted to journals shall not be considered.
- ❖ Institutional affiliation in the articles should be in the name and style of Management studies and Research Centre, B.M.S. College of Engineering.
- ❖ If the journal is listed in Web of Science and ABDC, conditions as per 1A will be considered.
- ❖ The cash incentive is applicable from 25.03.2023.
- ❖ The decision of the Principal regarding the approval of incentive is final and binding.

S.No	1A. Quality/Quartile Range	1B. ABDC Quality journals list rating	Cash Incentive
1	Q1 - Extremely high quality	A*	₹.25,000
2	Q2 - High quality	А	₹.15,000
3	Q3 - Medium quality	В	₹.10,000
4	Q4 - Acceptable quality	С	₹.5,000
	Journals in Web of Science but not in Journal Citation Report (JCR)	-	₹.2,500

#### 2. Incentive for writing technical books

- ❖ Cash incentive of Rs.5000/- will be awarded for publishing technical books, English & Kannada literature books, with ISBN through reputed publishers at State/National level.
- ❖ The faculty satisfactorily completed their two-year probationary period are eligible for the said claim.



#### 3. Incentive for Sponsored Research Projects

- a. Faculty members who receive projects from external funding agencies are awarded cash incentive of 5 % of the total money received.
- b. The 5% incentive received shall be shared among the principal investigator and co- principal investigators/staff/students listed in the proposal.

#### 4. Incentive Scheme for professional body membership & MOOC Courses

- ❖ 100% Annual Membership fee reimbursement of any Indian professional body in respective domain of the faculty member will be provided.
- ❖ 75% Annual Membership fee reimbursement of any International professional body in respective domain of the faculty member will be provided.
- ❖ 100% course fees for MOOCs/SWAYAM/NPTEL/Coursera/edX, etc.

#### **Conditions**

- The benefit is extended to all the faculties who have satisfactorily completed their two-year probationary period.
- ➤ The annual expenditure in lieu of extending all the above benefits put together shall not exceed Rs.15,000/- per faculty on reimbursement basis.
- > This benefit will not be extended to those faculties whose student feedback is less than the threshold rating during the academic year.

#### **❖** Seed money to Faculty under Faculty Research Promotion Scheme (FRPS)

#### 4.1. Introduction:

This research initiation is designed to attract young faculty to perform quality research and publish their work in the reputed international journals. This policy provides a substantial package to begin scholarly research at BMSCE.

#### 4.2. Objectives:

- Enable the beginning of research and related activities for a newly recruited faculty who has significant potential to attract external funding.
- > To motivate faculty to pursue research.



#### 4.3. Award:

Grants shall be awarded for up to Rs. 2 Lakhs and the amount should be spent within a maximum of 24 months after the date of sanction.

#### 4.4. Eligibility:

- 4.4.1. Any new faculty of BMSCE appointed at the level of Assistant Professor or above, on regular basis.
- 4.4.2. This initiation grant can also be considered for those recruited in the last six years in BMSCE provided they have not received funding from any other agency. The grant will, however, be contingent upon their performance in the past few months/years, and upon the strength of the proposal.
- 4.4.3. Faculty who have completed six years in BMSCE but have not received any grants may also be considered subject to the availability of the funds and merit of the proposal.
- 4.4.4. The faculty should commit to publish and seek external funding for R&D projects.

#### 4.5. Application Process:

Faculty members should apply for FRPS, through his/her Head of the Department, by providing details (as per Annexure 1) of the research to be carried out. The total budget should not exceed the prescribed limit.

#### 4.6. Selection Criteria:

- 4.6.1. The research plan which is sustainable and has the potential to attract external funding will be encouraged.
- 4.6.2. The research should be beneficial to the community/society at large.
- 4.6.3. Itemized budget should be consistent with a research plan.



#### 4.7. Evaluation Process

4.7.1. The application/proposal will be reviewed by the domain specific Expert Committee. On recommendation from the committee, it will be considered for approval and sanction.

#### 4.8. **Guidelines for Expenditure**:

- 4.8.1. The funds may be used to purchase specialized research equipment, databases, software, laboratory supplies, sample collection, and analysis and consumables which are not routinely procured regularly.
- 4.8.2. Record of purchase will be maintained by the department.

#### 4.9. Conditions:

- 4.9.1. All purchases/expenses should be processed in accordance with BMSCE policies and procedures.
- 4.9.2. Periodical review of the progress of the research will be monitored half-yearly by the Head-R&D and R&D Committee.

#### 4.10. Expected Outcomes:

- 4.10.1. BMSCE expects that faculty who avail of the research grant, will seek external funds to support their research program within two years of the commencement of the grant. The report of the faculty on the use and outcome of the grant will be part of the faculty appraisal.
- 4.10.2. The faculties are expected to publish in good quality journals and explore the possibility of patenting or productization.



#### 5. Support for Conference and Workshop / FDP / Training / STTP, etc

Faculties are encouraged to present their research work in national and international conferences and to attend the FDPs organized by premier institutions. The incurred expenditure will be paid on reimbursement basis which includes the Registration Fee / Travel/ Accommodation.

## 5.1 Conditions for presenting a paper in National or International Conference or attending a workshop / FDP/ training, etc within India

- ❖ The total financial assistance from the college for the following shall not exceed Rs. 20,000/- per trip and a total of two times the opportunity can be availed by a faculty in a financial year.
  - Registration Fee
  - Travel (Air/Bus/Train)
  - Accommodation

#### 5.2 Conditions for presenting a paper in International Conference outside India

- ❖ The total financial assistance from the college for the following shall not exceed Rs. 1,25,000/- per trip once in three financial years. Only one conference for three years per faculty is permitted.
  - Registration Fee
  - International and local Travel (Air/Bus/Train)
  - Accommodation

#### **Conditions for sanction of financial Benefit**

- ❖ Faculty should be full-time employee and have completed the probationary period successfully.
- ❖ Faculty member should present the paper. If one or more faculty are the authors of the same paper/article, only one author will be eligible for financial assistance.
- ❖ The faculty should present the paper in his/her domain of expertise or in pedagogy.



- ❖ Financial assistance for paper presentation in the international conference abroad is subject to the additional review and recommendation by suitable experts in the field based on the paper submitted by the faculty.
- ❖ The presented paper should be published as proceedings which have the potential to get indexed in scopus and/or web of science. This can be verified based on the publications of previous proceedings of the conference.
- ❖ The faculty is required to submit the request through proper channel for financial assistance at least three months before the conference for outside India and three weeks before the conference/workshop/FDP/training within India.
- ❖ The financial support provided shall be such that the total assistance received from all sources including external funding agencies shall not exceed the total expenditure. Self-declaration with relevant proof shall be provided as soon as such assistance is approved/sanctioned from any funding agencies.
- ❖ The financial assistance will be based on reimbursement basis. The reimbursement is subject to the production of original receipts/bills/invoices, in the name of the faculty or the college.
- ❖ In case the conference/workshop/FDP/training is cancelled by the organizer, the financial benefit will be receded by the college.
- ❖ Prior approval and sanction from the Principal is mandatory for financial benefit.
- ❖ The discretion of sanctioning the financial support to the faculty lies with the management and it is final binding.



#### 6. Deputation of faculty for PhD

Faculty members are encouraged to pursue PhD at premier institutions like IIT, IISc, NIT, etc.,

#### 6.1 Admissions to PhD under Quality Improvement Programme (QIP)

The faculty on deputation shall be on regular pay rolls and should have completed 3 years. A maximum of 10% of the total faculty members in a department may be deputed for pursuing PhD programme on Full Time under QIP subject to the following guidelines/eligibility conditions for issuing the No Objection Certificate (NOC).

#### In case of Grant in Aid (GIA) faculty:

- The faculty on deputation shall complete his/her studies diligently for the purpose for which he/she is deputed;
- The faculty on deputation shall within a week after completion of his/her studies report to BMSCE;
- ❖ The faculty on deputation shall serve BMSCE after reporting in such post and on such term as the college may fix for a minimum period of three years;
- ❖ In case the faculty on deputation fails to fulfil the above three conditions, the faculty on deputation and the surety shall be jointly and severely liable for the repayment of full amount of expenditure incurred to the Government on the account of deputation with such interest thereon not exceeding ten percent per annum as the Government may, at their option, fix and demand;
- Granting of any time to the faculty on deputation to pay the whole or part of the amount due from him/her will not obsolete the surety or his/her liability;
- ❖ All the Government regulations/rules on the matter from time to time shall be binding on the faculty on deputation;
- ❖ The faculty on deputation shall be bound by the rules governing the grant of deputation allowances.



#### In case of Management (MGT) faculty:

- ❖ The faculty on deputation shall complete his/her studies diligently for the purpose for which he/she is deputed;
- ❖ Faculty should execute a Bond (on a Stamp Paper) with a surety to serve BMSCE for a minimum period of 3 years after successful completion of Ph.D. programme;
- The faculty on deputation shall within a week after completion of his/her studies report to BMSCE;
- ❖ The faculty on deputation shall be paid 50% of salary during the deputation period and the remaining 50% after serving for a minimum period of three years
- ❖ In case the faculty on deputation fails to fulfil the above conditions, he/she shall forego the 50% of balance amount of salary; and also, the faculty and the surety shall be jointly and severely liable for the payment of one full year (12 months) salary to BMSCE;
- ❖ The faculty on deputation shall be bound by the rules of Management from time to time.

#### 6.2 Admissions to PhD under External Registration Programme (ERP) as Part Time

In order to motivate the faculty to pursue their higher education, the faculty members have been permitted to register for Ph.D Programme as external candidate.

- ❖ The faculty on deputation shall complete his/her studies diligently for the purpose for which he/she is deputed;
- ❖ Faculty should execute a Bond (on a Stamp Paper) with a surety to serve BMSCE for a minimum period of 3 years after successful completion of Ph.D. programme;
- The faculty shall be on regular pay rolls and satisfactorily completed probationary period.



The faculty members pursuing Ph.D. under External Registration Programme (ERP) are being deputed for residential stay for one semester with 50% of salary during their residential stay and the same will be paid after serving the College for a period of three years after completion of Ph.D.

- ❖ In case the faculty fails to fulfil the above condition, the faculty and the surety shall be jointly and severely liable for the payment of one full year (12 months) salary to BMSCE;
- ❖ The faculty shall be bound by the rules of Management from time to time.

#### 6.3 Performance monitoring for both candidates under QIP and ERP

- ❖ The performance of faculty on deputation (either full time or part-time under any institution/university) shall be reviewed periodically by the institution.
- ❖ The faculty deputed to pursue PhD must give at least one Seminar at the institute per year of their work.
- ❖ This is aimed to assess their progress and measure their performance for sanctioning annual increment.
- ❖ Faculty on deputation (either full time or part-time under any institution/ university) shall adhere to the guidelines / regulation of the University / Institution in which they have registered for PhD.

#### 7. Mandatory Publications by the faculty member

It is mandatory that each faculty member shall publish at least two papers per year in refereed journals indexed by Web of Science/Scopus and any faculty not complying with the said requirement would be viewed seriously during the yearly increment interaction. The conference publications converted to journals/proceedings shall not be considered as the Journal publications.



#### 8. B.S. Narayan Fellowship

To nurture research and development activities among research scholars and to attract Full-time Ph.D. scholars, B.M.S. College of Engineering has constituted the B.S. Narayan Fellowship for **full-time Ph.D. research scholars** in the 15 recognized research centers at BMSCE.

The Terms and conditions for award of the fellowship are listed below:

#### 1. Eligibility:

- a. **Universities:** BMSCE has 15 research centres recognised by Visvesvaraya Technological University and/or Mangalore University. The research scholars who are admitted to the Ph.D. Programs through these recognised research centers are entitled to the fellowship.
- b. **Year of admission:** The research scholar should have obtained admission in 2020 or later.
- c. **Non-Eligibility:** The research scholars receiving the fellowship from any government or private agencies in India and abroad (ex: AICTE QIP / AICTE Doctoral fellowship (ADF), Project fellowship, Industry fellowship, etc) are not eligible for BSN Fellowship. In case any scholar receives the fellowship in between from any other funding agencies/sources, the BSN Fellowship will be discontinued.
- 2.**Fellowship amount:** The research scholars pursuing full-time Ph.D. at BMSCE are entitled to a monthly stipend of Rs.20,000/- (Rupees Twenty Thousand Only).
- 3.**Duration of stipend:** The stipend will be extended for a period of 3 years. Further extension of one year may be provided based on the performance and recommendation of the Guide and Head of research centre. However, the final decision lies with the management and the Principal.
- 4.**Start of fellowship:** The date of the start of the fellowship will be mentioned in the confirmation letter issued by the R&D Centre.
- 5.**Workload:** The candidate will be expected to carry out 4 to 6 hours per week of Teaching workload including laboratory, tutorials, CIE Invigilations, etc as assigned by the Head of the Research Centre in consultation with research supervisor.
- 6.**Progress review:** The progress of the candidate has to be satisfactory to continue receiving the stipend. The review will be held once in six months by the R&D Centre.



- 7.**Coursework and Comprehensive Viva:** The research scholar is expected to complete the coursework within the first 3 semesters and appear for comprehensive viva by the end of the second year of research.
- 8.**Publications:** He/She shall publish at least 2 quality journal articles (Web of Science Indexed). However, it is encouraged that the candidate at least submits one journal article at the end of the second year of research and publishes a total of two publications at the end of the third year.
- 9. **Deputation for workshop/training/research activities:** The full-time research scholars will not be allowed to take up any assignments outside of BMSCE. However, the scholars can be deputed to other premier institutes or companies for training/workshops/research activities, etc based on research requirements and recommendations from the committee.
- 10.**Casual Leaves:** He/She is entitled to a total of 15 days of Casual Leaves in a calendar year with the prior permission of the Supervisor and Head of the research center, subject to the condition that such leave will not be longer than 5 days at a time. This leave cannot be carried over to the next calendar year. The leave will be calculated proportionately in accordance with the date of joining and leaving.
- 11. **Attendance:** The candidate will have to register his attendance in the register/biometric twice a day. The working hours will be the same as the college working hours. The Research centre shall maintain a record of leave every month and cumulative leave details are to be entered in the attendance register. Loss of pay if any must be clearly indicated in the attendance report submitted to the R&D centre.
- 12. **Monthly report:** The candidate should submit the attendance and the monthly report of research and academic activities on or before the 5th of every subsequent month to receive the stipend. The same has to be attested and recommended by the supervisor and the head of the research centre.
- 13. **Discontinuation:** The fellowship will be discontinued if the research scholar fails to meet the required academic and research requirements.
- 14.**Bond:** The candidate opting to avail the stipend will be expected to exercise a bond, wherein he/she agrees to complete the Doctoral studies. If the candidate discontinues the course, he/she will have to repay the stipend with interest as per the institute norms.
- 15.**Conflict in the terms and conditions:** The respective University norms shall be followed along with the above terms and conditions. Any conflict that may arise between these terms and conditions and in line with the university norms will be resolved by the college and will be final binding for the research scholars.



#### 9. MoU for Research Collaboration

In order to promote Institution research collaboration with Industry, NGO or other premier Academic/Research institutions MOUs are encouraged. These MOUs are routed through R&D centre which includes publication policy, IPR, conflict of interest, expected outcomes and tenure. The R&D centre shall review the progress and activities of these MOUs for every 6 months. The R&D centre shall look into the feasibility of extending the MOUs or closing depending on the performance.

#### 10. Code of ethics in Research

To ensure the quality of all research activities of the college and to observe the highest standards of ethics and integrity in conduct of research, all researchers/faculties must follow ethical guidelines of BMSCE.

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1. Project Title:

2. Broad subject:

## <u>Annexure – 1</u>

#### FORMAT FOR SUBMISSION OF PROJECT PROPOSAL UNDER RESEARCH PROMOTION SCHEME (FRPS)

3.	Subject Area:	
4.	<b>Duration in months:</b>	(1 year/2 year)
5.	<b>Total Cost:</b>	(limited to 2 Lakh rupees only)
6.	Principal Investigator:	
7.	Mentor (If any):	
8.	<b>Designation:</b>	
9.	Department:	
10.	Mobile & Email Id:	
11.	Number of Scopus/Web of Scie	nce indexed journal publications (2017 to till date):
12.	Project summary (maximum 1	00 words):
13.	Objective (Maximum 3):	
14.	Review of status of Research ar a. International status	nd Development in the subject
	b. National status	
	c. Preliminary work done	e so far (BMSCE), if any
15.	Expected deliverables of the pro	oject [Patent, Publication [Q1 to Q4], product etc.,]
16.	Societal impact/community imp	act:
17.	Methodology with flowchart/blo	ock diagram:
18.	Gantt Chart (1 / 2 years):	



#### 19. Budget: (Human resources, Travel, Conference, or Contingency are not permitted)

Sl. No.	Recurring	Non-Recurring	BUDGET			
			1 <sup>st</sup> Year	2 <sup>nd</sup> Year		
		TOTAL				

### 20. Details of the Journal publications (2017 to till date)

Entry	Complete list of authors in the journal	Name of the journal	Title of the paper	Year	Volume	Issue	Page No's xx- xx	citations			
1											
2											
3											
4											
5											
Link to	Link to journal paper		Entry 1 -								
		Entry 2 -									
		Entry 3 -									
		Entry 4 -									
		Entry 5 -									
	web of	Entry 1 -									
science index webpage*		Entry 2 -									
	_	Entry 3 -									
		Entry 4 -									
		Entry 5 -									



AND ALORE SAFE							
*-based on clarivate analytics							
I hereby certify that above particulars are correct to my knowledge and belief. I shall complete the objectives as per the above proposal.							
Signature of the PI with date	Signature of the Mentor with date						



#### IPR Policy of BMSCE, Bangalore

#### BACKGROUND/REASON FOR POLICY

The principal mission of B.M.S. College of Engineering (here in after BMSCE) is to engage in assimilating and imparting knowledge and provide a nurturing environment for students and faculty to apply the science, technology and engineering principles in innovative projects. BMSCE recognizes that creative endeavors are a natural outgrowth of the pursuit of this mission and in past few years has been encouraging students and faculty to generate research work that can qualify for patent protection. While this effort is gaining momentum, BMSCE also recognizes that the proper management of such endeavors and related intellectual property rights would strengthen and provide a strong foundation for growth of such projects and enable a sustained focus to this effort. In support of these goals, BMSCE is providing guidelines for inventions, copyrightable works, trademarks and other related intellectual property rights arising from the activities of its faculty, staff, students, and others who use BMSCE resources, including those provided through an externally funded grant, contract, or other type of award or gift to the Institution.

#### STATEMENT OF POLICY

#### I. Inventions

- 1. **Principle of BMSCE Ownership.** The BMSCE shall own each Invention conceived in whole or in part during the course of any employment, research, or scholarship activity of any BMSCE student, Research scholar, faculty, or relating to the use of BMSCE Resources.
- 2. Invention Disclosure. Inventors shall promptly in writing through an Invention Disclosure Form (See Annexure-1) disclose and assign each Invention to the BMSCE and/or its designee, and shall not disclose any Invention to any third- party except as specifically authorized by the BMSCE or its designee. If more than one individual participated in the invention or development, the form shall include names of all such participants. The form shall constitute a full and complete disclosure of the Invention subject matter and the identity of all persons participating therein. The Invention Disclosure Form should be submitted to Director R&D, BMSCE, who would provide his recommendation to the Principal and take it forward for further processing for preparing a patent application.

Further, prior to making any public disclosures of the research work through publications in Journals/books, presentations in Conferences / Workshops, etc., including to a third party, the inventors/researchers should get the recommendation from the Head, R&D, BMSCE for approval by the Principal, BMSCE. To that end, all necessary documents, data, background Material, etc as required by the Principal and Head, R&D, BMSCE should be furnished by the inventors/researchers.

II. Copyrightable Works



- 1. **Principle of BMSCE Ownership.** The BMSCE permits authors to retain the copyright to Instructional Copyrightable Works and Scholarly Copyrightable Works. Excepting only Instructional Copyrightable Works and Scholarly Copyrightable Works, the BMSCE shall own the copyright to each Copyrightable Work conceived in whole or in part during the course of any employment, research, or scholarship activity of any BMSCE student, Research scholar, faculty or relating to the use of BMSCE Resources.
- 2. Disclosure of Copyrightable Works with Potential Commercial Value. Each author of a Copyrightable Work that is BMSCE-owned according to the foregoing Principle of BMSCE Ownership and that may have potential commercial value shall promptly disclose the Copyrightable Work in writing to the BMSCE and/or its designee.
- 3. License to BMSCE for Instructional or Scholarly Copyrightable Works. Each Instructional or Scholarly Copyrightable Work shall, by operation of this policy, be subject to a perpetual nonexclusive, royalty-free license from the author to the BMSCE to use, duplicate, and internally distribute the Instructional or Scholarly Copyrightable Work for any pedagogical, research, or educational purpose of the BMSCE, subject to attribution of original authorship and to internal academic procedures and requirements of BMSCE. The foregoing license shall be broadly construed to enable the BMSCE's efforts to preserve research integrity and prevent fabrication, falsification, and plagiarism.
- **III. Trademarks** The BMSCE owns all rights, title and interest in Trademarks that relate to BMSCE Intellectual Property or relate to a program of education, service, public relations, research or training by the BMSCE.
- IV. Tangible Research Property and Research Data. The BMSCE owns all rights, title, and interest in Tangible Research Property and Research Data developed with support from BMSCE Resources. All research work with associated data including results should be recorded in a suitable Research Note Book as per the guidelines available with Head R&D, BMSCE. Subject to Section VII of this policy, in most instances the BMSCE allows access of BMSCE- owned Tangible Research Property or Research Data to BMSCE personnel at the discretion of the Principal duly recommended by Head, R&D, BMSCE for any non-commercial purpose.
- V. Respecting others IPRs. The BMSCE through this IPR Policy notices all BMSCE students, Research scholars, faculty to respect IPRs owned by others and not to use IPRs owned by others for any project, research, teaching or reference or any other purpose without appropriate authorizations from the owners of such IPRs, and without proper acknowledgement of such use. Any such improper use by any BMSCE personnel would be treated as plagiarism and would be considered an offence. Principal BMSCE would take necessary disciplinary and other legally required action for such offence.



- VI. Administration and Execution of IPR Policy. The IPR Policy will be managed by Head, R&D, BMSCE. The Principal and the Head R&D, BMSCE would have the authority to enforce the sections of the IPR Policy and also to review, and amend the sections as and when required.
- VII. Disposition of BMSCE Intellectual Property This policy shall be deemed 1) a term and condition of employment for every employee of the BMSCE, 2) a term and condition of enrollment and attendance at the BMSCE by students, and 3) a term and condition of participation in any BMSCE research or other use of BMSCE Resources by any person (whether or not employed by, compensated by, or enrolled at the BMSCE). This would include: (i) External Research Scholars registered under VTU or other universities to work in BMSCE Research Centers and/or getting guidance from the faculty of BMSCE and (ii) Internal Research Scholar from BMSCE registered in other Institutions registered under VTU or other universities and getting guidance from the faculty of BMSCE
- VIII. Outside Activities authorized by the BMSCE for BMSCE faculty or staff, remain subject to this policy to the extent this policy does not conflict with any other existing policy applicable to third party. In case of a conflict, the ownership of all IP emanating from such outside activities (Collaborative work) will be mutually decided through discussions on case-by case basis.

As directed and requested by the BMSCE and/or its designee, all creators of BMSCE Intellectual Property shall execute legal documents required to effect this policy. The BMSCE (on its own behalf and on behalf of its designee) reserves the sole right in its exclusive discretion to make agreements regarding the retention, ownership, patenting, licensing, accessing, and any other use or disposition of any right, title or interest in BMSCE Intellectual Property.

The BMSCE and/or its designee will determine whether to commit funding to obtain patent, copyright, or trademark protection for particular disclosed BMSCE Intellectual Property and/or to seek to identify one or more licensees who will bear the cost of obtaining that legal protection. No creator of BMSCE Intellectual Property has the authority to assign, license or otherwise dispose of BMSCE Intellectual Property except to the BMSCE or its designee pursuant to this Agreement. BMSCE personnel engaged in Outside Activities shall have no authority to enter into an Intellectual Property agreement that conflicts with this policy. Persons who wish to confirm that a consulting, employment, or other agreement that addresses assignment of intellectual property associated with a proposed Outside Activity does not conflict with this policy should submit a copy of the agreement for review by BMSCE.



- IX. Commercialization of Intellectual Property.
  - **1. Patents:** BMSCE may pursue commercialization of the patents owned by it and any revenue from such commercialization may be distributed as under clause 3 of this section.
  - **2.** Equities of Participating PartiesGeneral Policy. Income derived by the BMSCE and/or its designee directly from the commercialization of BMSCE Intellectual Property shall be administered in accordance with this policy. It is the policy of BMSCE to encourage and recognize the creative efforts of BMSCE personnel and, to share the financial rewards of such efforts on an equitable basis. This general policy may be rescinded or amended at any time by the BMSCE, and all legally enforceable rights related to Tangible Research Property and Research Data (Intellectual Property or proceeds there from) owned presently or in future by the Institution will remain with the Institution.
  - **3. General Principle of Division.** In most instances, net Proceeds will be distributed according to the following formula a) one-third to the BMSCE, and b) two-thirds to inventors comprising of BMSCE or other personnel who created the BMSCE Intellectual Property that gives rise to the Net Proceeds. Any agreement among those BMSCE personnel setting relative distribution shares among themselves shall be decided by the concerned BMSCE personnel. The Principal may authorize a variance from the foregoing principles, depending upon the circumstances of an individual case, including relevant contractual arrangements and any applicable funding regulations.
- X. Reconveyance of BMSCE Intellectual Property: Intellectual Property may be re conveyed to the BMSCE personnel who disclosed it, upon their request to the Principal, BMSCE, if the reconveyance would not: (i) violate any legal obligations of or to the BMSCE, (ii) limit appropriate BMSCE uses of the materials, (iii) create an unmanageable conflict of interest for the inventor/creator,(iv) have significant commercial or public value which may best be exploited by the BMSCE itself, or (v) otherwise conflict with BMSCE goals or principles.
- **XI. Works of Independent Contractors.** A written agreement will be documented from independent contractors such as website developers, architects, building contractors, interior decorators, special software developers, etc., that ownership of Inventions/Copyrightable Works made in the course of a BMSCE retention will be assigned to the BMSCE.
- XI IP generated in externally funded projects. For the IP generated through externally funded projected such as sponsored research programs, the ownership and sharing of IP will be done on case-by-case basis, depending on nature of project, funding and other factors. All IP generated through these Projects will be documented and communicated to the Director, R&D, BMSCE. In cases where the ownership is assigned to the sponsoring party, BMSCE would retain a license free use of such IP for its teaching and research purposes.



#### **XII.** Miscellaneous

- **1. Designee.** The BMSCE may designate Head, R&D, BMSCE or any other representative to act for it in any respect here under.
- **2. Amendments.** This Memorandum may be amended or rescinded in whole or in part at any time by the Principal of the BMSCE.



#### WHO SHOULD KNOW THIS POLICY

- Board of Governors
- Faculty/Visiting Faculty
- All students/Research Scholars
- Visiting Scientists / Visiting Scholars
- All employees

#### **EXCLUSIONS**

There are no exclusions from this policy.

This policy shall not be interpreted to limit the BMSCE's ability to meet its obligations for deliverables under any contract, grant, or other arrangement with third-parties, including sponsored research agreements, license agreements and the like. The BMSCE shall coordinate reporting requirements and other obligations to research sponsors regarding BMSCE Intellectual Property developed under a research contract or grant.

#### RESPONSIBILITIES

#### Inventors/Authors:

- a. Duly record the details of the research work and associated data in a Research Notebook as per the guidelines provided by Head R&D, BMSCE. Duly record the source of any extraneous material obtained from an external source during the course of the research/project/teaching material (accurate citations for the source to be provided).
- b. Prior to making any public disclosures of the research work through publications in Journals/books, presentations in Conferences / Workshops, etc., including to a third party, the inventors/researchers should get the permission of the Principal routing the request through Head R&D, BMSCE. To that end, all necessary documents, data, background material, etc as required by the Principal and Head R&D, BMSCE should be furnished by the inventors/researchers.

If the research work has elements of new approaches, results that can be patentable, the researchers should submit such aspects of their work through the Invention Disclosure Form to the Head R&D, BMSCE and maintain

a. Confidentiality of such work till a decision is received from the Head R&D, BMSCE Center towards filing or not filing of patent on such work.



- b. In collaborative research work with another Institution/third party, inform Head R&D, BMSCE of such work, and maintain clear records of such work.
- c. Be aware that the IP Policy is binding on them during their association with BMSCE.

#### Head R&D, BMSCE:

- a. Owns the implementation and administration of the IP Policy.
- b. Ensures that the IP Policy is communicated to all faculty/students/third parties associated with BMSCE.
- c. Create standard procedures for submission of ideas/inventions, for review of the Disclosures, for billing and other necessary operating procedures.
- d. Conduct timely reviews of the submitted invention Disclosures if needed and take the necessary next steps for getting the patent applications filed for the approved disclosures.
- e. Conduct periodic meetings of the Steering Committee to inform about the activities of the Centre and take any directions.
- f. Build the R&D Centre as a self-sustaining unit in the long run using the Commercialization funds.
- g. Create awareness and appreciation of IP amongst the faculty and students of BMSCE.

#### Administration/Accounts:

a. The activities of the BMSCE R&D specifically communication of the Policy, creating awareness and disseminating funds in a timely manner towards filing of patent applications.

#### The Principal:

Provide support and guidance to Head, R&D BMSCE in implementing its activities, communicate the Policy to HODs and assert it's importance in different interactions with faculty and students.



DEFINITIONS	
Word	Definition
Intellectual Property	The term "Intellectual Property" means property such as a invention, patent, copyrightable work, copyright, trademark service mark, trade secret, integrated circuit mask, research data plant variety protection certificate, tangible research property or physical embodiment such as a model, machine, device, design apparatus, instrumentation, circuit, computer program visualization, biological material, chemical, other composition of matter, or plant that originates in or relates to academic or research activity and that is protectable by any law.
Invention	The term "Invention" means a type of discovery, process, metho device, plant, composition of matter, or other creation that may be considered inventive within the meaning of patent laws.  The term "Copyrightable Work" means an original work of authorship, which has been fixed in any tangible medium of expression, such as:
Copyrightable Work	<ul> <li>Literary works such as books, journal articles, poems manuals, memoranda, tests, computer programs, instructions material, databases, bibliographies;</li> <li>Computer software;</li> <li>Musical works including any accompanying words; Recorde performances, including instructional performances;</li> <li>Dramatic works, including any accompanying music;</li> <li>Pantomimes and choreographic works (if fixed, as in notation or videotape);</li> <li>Pictorial, graphic and sculptural works, including photographs diagrams, sketches and integrated circuit masks;</li> <li>Motion pictures and other audiovisual works such as videotapes;</li> <li>Sound recordings;</li> <li>Architectural works; and</li> </ul>



Word	Definition
Instructional Copyrightable Work	Any other works determined to be copyrightable under copyright laws as now existing or hereafter amended or supplemented. A Copyrightable Work may be the product of a single author or a group of authors who have collaborated on a project. The term "Instructional Copyrightable Work" means a Copyrightable Work that a) is authored by an identifiable BMSCE faculty member or instructor primarily for the instruction of students, b) is not specifically commissioned by the BMSCE, and c) is not a recording of a teaching performance made to or for BMSCE students.
Scholarly Copyrightable Work	The term "Scholarly Copyrightable Work" means a Copyrightable Work created by any person subject to this policy primarily to express and preserve scholarship as evidence of academic advancement or academic accomplishment. Such works may include, but are not limited to, scholarly publications, journal articles, research bulletins, monographs, books, plays, poems, musical compositions and other works of artistic imagination, and works of students created in the course of their education, such as exams, projects, theses or dissertations, papers and articles.
Trademark (including Service Mark)	The terms "Trademark" and/or "Service Mark" mean any word, name, symbol or device, or any combination there of, whether or not registered as a trademark, that is used to identify goods or services and distinguish them from those manufactured or sold by others
Research Data	The term "Research Data" means the recorded factual material commonly accepted in the research and scholarly communities as necessary to validate research findings, but not any of the following: preliminary analyses, drafts of scholarly manuscripts, plans for future research, peer reviews, or communications with colleagues.
Tangible Research Property	The term "Tangible Research Property" means items produced in the course of research, such as compositions, biological materials, materials, drawings, devices, and equipment.



Word	Definition
BMSCE Resources	The term "BMSCE Resources" means any support administered by or through BMSCE, including but not limited to funds, facilities, equipment or personnel, and funds, facilities, equipment, or personnel which are provided by governmental, commercial, industrial, or other public or private organizations and administered or controlled by the BMSCE.
BMSCE Intellectual Property	Intellectual Property which is owned or controlled by the BMSCE pursuant to this policy and/or applicable law is BMSCE Intellectual Property.
Net Proceeds	The net proceeds derived from BMSCE Intellectual Property shall mean the gross receipts there from (including, but not limited to, rents, royalties, dividends, earnings, gains, and sales proceeds), less all costs, expenses and losses paid or incurred by the BMSCE or its
Net Proceeds	designee in connection therewith (including, but not limited to, all direct and indirect costs and expenses specific to the creation, preservation and legal protection of the BMSCE Intellectual Property, including attorney fees).



## **INVENTION DISCLOSURE FORM**

Note: Filling in this form is the first step towards a possible protection of your invention or idea.

This document's purpose is:

- being an instrument for self-evaluation
- to allow the patent attorney to have a first idea about the feasibility of protection

All information that is supplied below will be treated confidentially.

In order for an invention to be patentable, an invention must be NOVEL, USEFUL and NOT OBVIOUS to a person skilled in the art, based upon all prior art disclosures which was available at the time of the invention.

- 1. Title of the Invention:
- 2. Field of Invention:
- 3. Details of Inventor(s):

1.)

Add. :

Tel. :

Email :

Nationality :

Occ. :



4. Ownership / Applicant details: B.M.S. College of Engineering

1.) Occ. : Educational Institution

Add. : Bull Temple Road, Bengaluru-560019

Tel. : 080-26622130

Email : principal@bmsce.ac.in

Nationality : Indian

5. Abstract of the Invention:

6. Detailed Explanation of the Invention along with working examples. Kindly provide an elaborated description of each and every aspect of the invention (product and/or process) in great detail. The details should cover the following:

a.) How to make and use the Invention

Ans. .

- b.) Best mode of making the Invention: What steps (if a method/process) or parts make up the invention, in its best (preferred) form?

  Ans.
- c.) What does each step in the method or each part in the product contribute to the invention? Ans.
- d.) Which parts or step in the method is new to this invention (in form or usage), which are old (conventional, used in the expected way)?

  Ans.
- e.) In what way do the parts in the product interact to make the invention work? Ans.
- d.) For each part or step, indicate if the part or step (or its form or interconnection) is ESSENTIAL to the invention that is, for each part or step, ask, "if this part or step were left out, or changed, would the remaining device or the method still be my invention?" Or, "if this part or step were changed or left out, would the invention still work? Ans...



e.) If possible, use labelled sketches to detail your invention. Be sure all essential parts are shown on the sketch, and try not to include extraneous details. Measurements of each part are not required, unless they are essential to the operation of the invention.

Ans.

In the fig. A, part (1) shows the conical portion at the top of the inlet curved vanes.

Part (2) shows the varying pitch inlet curved vanes with trapezium cross section.

.

f.) Kindly attach drawings, reports, papers, charts or other materials that may aid in your description.

Ans.

7. Software-related inventions should be supported with flow charts: Ans.

8. Do you feel that a person of "average" skill (not-extraordinary skill) in your area of technology would have arrived at your invention with existing knowledge in public domain? If no, what could be the reasons for the same?

Ans.

- 9. Please provide details of any possible alternative versions of the Invention, such as
  - In what ways could the parts or steps (in case of process) be changed or equivalent parts substituted without changing the basic invention?

Ans..

➤ Is there a generic description for any of the parts or material you listed (i.e. "fastener" instead of "Machine Screw", or "plastic" instead of "polypropylene")?

Ans.

➤ Could the functions of any of the parts or steps be changed, combined, eliminated? Ans.



➤ What could be added to make the invention work better?

Ans.

➤ What could be left out?

Ans.

10. Please describe the Unique Features of the Invention

Ans.

- 11. Probable use of the Invention
  - ➤ Please describe the economic and industrial benefits of the invention and its applications. What is the use of it?

Ans.

➤ What application do you aim at?

Ans.

➤ What could attract a potential partner?

Ans

➤ What is the expected lifetime of the invention and its derivatives?

Ans.

➤ Please think over - Can your invention be used for anything other than its preferred use?

Ans.

- 12. Association with software
  - 1. Is the invention associated with any software?

Ans.



2. Has the computer program been submitted for registration of copyright? Is the patent supposed to protect some functionalities of the software? Point out the references of this software.

Ans.

- 13. Advantages of the Invention
- 1. How does the invention differentiate from the market?

Ans.

- 2. Why is it better than what already exists?
  - i. Similarities/differences, improvements of performance, lower cost, more reliable functioning...etc

Ans.

- 14. Limitations: Do you anticipate a situation where the invention may *not* work? Such as;
- 1. Are there any critical ranges of size, weight, pressure, etc. for any of the parts or steps of your invention? (i.e. "the cap must be made of steel with a Rockwell hardness of 32-56")

Ans.

2. Should some parts or steps in the process be made of specific substances or require specific substances?

Ans..

15. Is there any other related disclosure(s) that you have already submitted at any forum or planning to submit in future? Kindly provide relevant details and list dates for such disclosures. The disclosure could be in any form including print and electronic media disclosure in a gathering of experts or in an exhibition, Oral presentations, defence of PhD thesis or any kind of diploma, Dissemination of information through Internet or Intranet.

Ans.



16. Is the invention intended to be published? If yes, what are the (future) publication projects (give dates):
Ans.
17. Background of the Invention:
a) What are the present technologies that exist in the field of your invention and what are the limitations of the same? (Present state of Art)
Ans.
b) How is the function of the invention being done today?  Ans.
Alls.
c) What is the closest device (method) you are aware of to your invention?
Ans.
d) Is there something, which performs the same function in a different way?
Ans
e) Is there any combination of existing devices (methods) which would be similar to your invention?
Ans.
f) How does your invention perform its function different from, or better than, these
prior devices (methods)?
Ans.
g) Is there any similarity? If yes, how are they similar?
Ans.



h) Please provide the closest research papers or patent(s)/ patent application(s) which you think are relevant to your invention or which were referred by you to arrive at the present invention.

Ans.

- 18. Have you conducted novelty/non-obvious search for your invention?
- A. If yes, what are the databases /references/keywords used by you? What are the search results?
- Bibliography Ans.
- Existing list of patents Ans.
- 1. bibliography:
- 2. Existing list of patents:
  - B) If you hadn't invented the invention, where would you go to find one?

Ans. Research on internet

C) What catalogs, publications, etc. would you look in?

Ans.

D) To what extent have you looked?

Ans.

E) Who would be likely to purchase or use the invention?

Ans.

F)Do you know of any publications, which might describe the invention or its competitors?

Ans.

19. What are the aspects of your invention that you want to claim/monopolize? Ans.



- 20. Has your invention being reduced to practice? Has any prototype being made on this invention? If yes, kindly provide relevant information.

  Ans
- 21. Prior Filings: Have you filed a Disclosure Document or Provisional Patent Application on this invention, or has there been an application for patent in the India or elsewhere?

Ans.

Other Inventors: Is there anyone else who contributed to the conception or reduction to practice of the invention, in more than a purely mechanical way?

Ans.

- 22. Funding of project
- a) Who has funded the project/R&D Work and what are the funding conditions with specific reference to Intellectual Property Rights (IPR).

  Ans. .
- b) Rights in Others: Are you under any obligation to assign any rights in the invention to others?

  Ans.
- c) Was the invention developed in the course of your current employment or previous employment, or using any facilities belonging to your current employer/previous?

  Ans.
- d) If so, who may have rights to the invention? Ans.1.
- e) Do you have an agreement with your current/ previous employer that you will assign any inventions you may make to the employer?

Ans.

f) Was the invention developed in the course of a consulting agreement with someone else? If so, did you agree that any inventions belong to them? Ans.

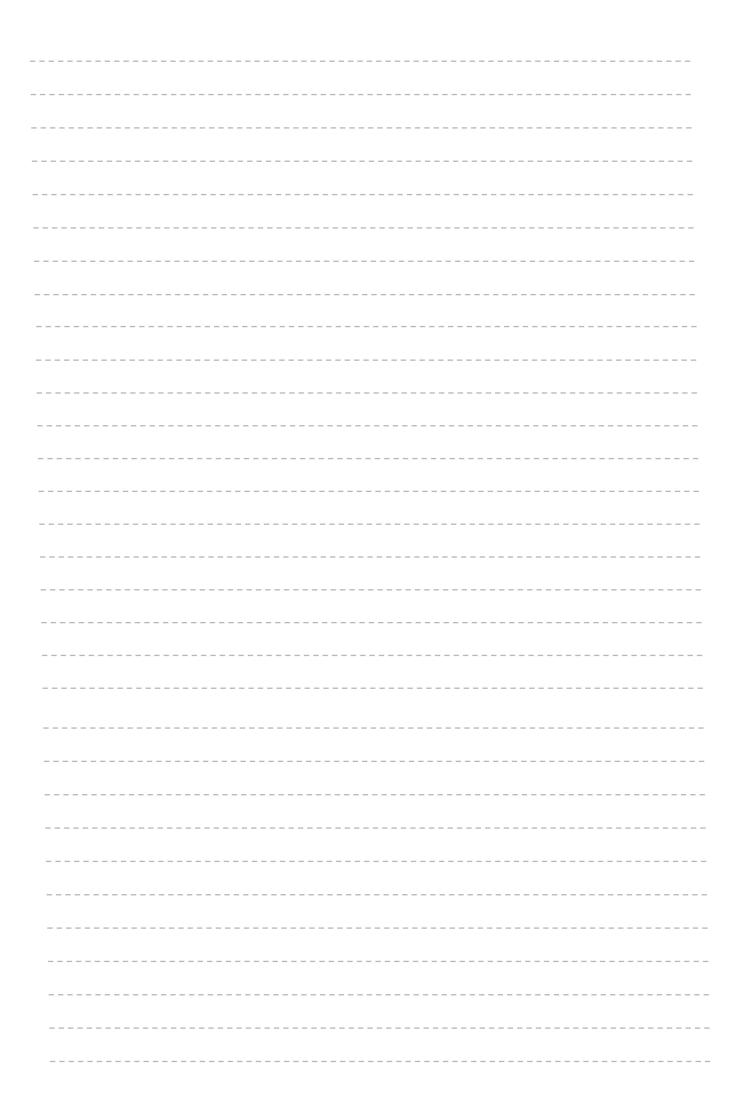


g) Wa	as there	e any funding	of the de	evelopment	of th	e inv	ention l	oy any	third p	arty	or
external a	igency	(government	agency,	industries	etc.)	who	might	claim	rights	in	the
invention?	•										
Ans.											

h) Was any equipment or facilities used in the development of the invention which was funded by or belongs to any government agency or industries? Ans.

23. Any additional notes or remarks.

(Sign of the Inventor/s)



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