

Autonomous Institute, Affiliated to VTU

MINUTES OF THE MEETING OF THE STRATEGIC PLAN (2021-2025) REVIEW COMMITTEE HELD ON 14.12.2020 AT 2.30 PM IN THE CHAMBERS OF THE PRINCIPAL

#### **Members Present**

1	Dr.B.V.Ravishankar	Principal & Chairperson
2	Dr.S.Muralidhara	Vice-Principal
3	Dr.Samita Maitra	Dean-Academics
4	Dr.Jayanthi S.	Dean, First Year-B.E
5	Dr.Mangala Keshava	Director, IQAC
6	Dr.Chetan Nayak	Faculty, CH
7	Dr.S.Manoharan	Faculty, MBA

#### **Leave of absence**

1	Dr.Guruprasad H.S.	Dean, Student Affairs
2	Dr.Abhishek Appaji	ICRD

At the outset, the Principal extended a cordial welcome to the members for the first meeting of the Strategic Plan (2021-2025).

The Principal informed the members that BMSCE has recently been recognized as one of the most Innovative research organizations in South Asia and South East Asia by Clarivate Derwent. BMSCE was one of the 235 organizations from amongst 19 different countries. The members expressed their happiness on the unique institutional achievement.

The members then noted the following points with regards to strategic plan (2021-2025).

- 1. The Strategic plan is critical to any institution and provides roadmap to the future activities.
- 2. The Strategic plan (2013-2020) with long term and short term perspectives was in vogue. The implementation of the strategic plan was executed by the Principal with the support and involvement of all the stake holders. The BOG periodically reviews the implementation of strategic plan in tandem with its mission and vision. The extent of compliance is being presented to the Board of Governors from time to time.
- 3. The college has been able to accomplish almost all the goals with the co-operation and support of all stakeholders. The Strategic Plan (draft) 2020-2025 has now been prepared. The efforts were led by the committee comprising of Dr.Mangala Keshava, Director, IQAC, Dr.S.Manoharan, Faculty of MBA and Dr.Chetan Nayak, Faculty of Chemical Engineering.



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The following basis was considered for formulating the strategic plan.

- SWOC Analysis conducted through external expert
- Observations of various assessing agencies
- Good Governance practices
- Improve standing under NIRF through focused improvement in all prescribed parameters
- Support student success
- Improve Institutional outreach
- Focus on future challenges

The IQAC Core Committee in its meeting held on 21.09.2019 approved in principle the proposed strategic plan 2020-2025. However, since the period of strategic plan was uptill 2020, it was decided to re-look the strategic plan in the perspective of 2021-2025.

The present Committee aims to further review the strategic plan. The final draft plan will be presented for approval of the Academic Council and BOG.

### 1. IMPLEMENTATION OF NEW EDUCATION POLICY 2020

The National Education Policy 2020 (NEP 2020) outlines the vision of India's new education system and the policy aims to transform India's education system. The college shall chalk out the modalities of its implementation with specific reference to engineering education through:

- a) Broad based multi-disciplinary, holistic Under Graduate education with flexible curricula, creative combinations of subjects, integration of vocational education.
- b) Various Entry/ Exit to be allowed with relevant certification. This will permit students to take a sabbatical and then join back their studies after a period of time, without losing any credits. Students will also be free to choose major and minor subjects for their degree.
- c) Provide importance to students' practical knowledge
- d) Curriculum content will be reduced in each subject to its core essentials
- e) Experiential learning including arts-integrated and sports-integrated education as well as story-telling-based pedagogy and others
- f) Creating digital content for online courses in cutting-edge domains, with the mode of delivery being in both English and regional language. The power of online pedagogy shall be utilized for effective learning.

To constitute a committee comprising of senior professors to discuss regarding the New Education Policy 2020 and chalk out the modalities of its implementation in the perspective of engineering institution.



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### 2. Research & Development - Roadmap - 2021-2025

BMSCE acknowledges innovations and research as a key focus area. The institution has developed necessary infrastructure for quality Research and Development. The institution encourages the faculty and students to take up research endeavours through number of initiatives in sensitizing/promoting research climate. The R&D Centre of the college works in three distinct aspects viz., advanced research, innovation and imparting standards among all the research scholars. To promote research and innovation, many new centres of excellence and innovative labs have been established. The labs are best-in-class, well-equipped and sophisticated. The facilities are regularly updated to stay advanced. To further enhance the institutional achievement in R&D,

- → Exclusive Strategic plan for R&D to enhance the research activities and outcomes to the next higher level
- → Facilitating multidisciplinary research
- → Cluster wise external expert
- → Single database for funding opportunities
- → Non-government grants (Foundation, Industry, etc)
- → International grants
- → Clarivate Analytics Web of Science access
- → Global connect
- → Faculty research promotion scheme for young researchers
- → Specific Faculty interaction meeting (with PhD, Pursuing PhD, about to register)
- → Faculty internship in Industry / institutes of repute
- → To organize various workshops/ seminar/ trainings related to promotion of research
- → Post Doc
- → Special Ph.D. Defence room
- → Open day to showcase projects
- → Enhanced research outcomes leading to patents and Commercialization
- → Display of models/Posters in the departments
- → Research museum to commemorate 75 years of BMS Journey



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### 3. Developing complete digital infrastructure in BMSCE

The college feels that a strong connection between digital engagement and student experience is pivotal for any institution. The WiFi and internet connectivity are indispensable tools to support the student learning and wellbeing. Over the years, the institution has stressed upon development of digital infrastructure throughout the campus. However, complete digitalization of the campus has always been on the major goals. Presently, the college has in place, well-developed software that is being used by students and faculty. Customized dashboards are provided to specific stakeholder to access data and update profile.

In the proposed initiative, it is planned to develop various access points to stakeholders regarding information dissemination, rules and regulations, events and progression details of students. It is proposed to conduct study to map the various stakeholder necessities and prepare necessary applications in phased manner for the usage of stakeholders like industry, parents, alumni and other universities.

The pre requisites for developing a complete digital infrastructure in the campus have been developed and some more plans are as follows:

- 1. Procurement of Servers on Cloud and Physical space
- 2. Development of new modules to facilitate stake holders Alumni, Parents, employers
- 3. Connecting all the modules through ERP systems Samarth from IIT Delhi to Create student-services ecosystem to support the entire student life cycle
- 4. To create an information tool to integrate data as per the format of assessing agencies like NAAC/NIRF/AICTE/VTU/UGC etc.
- 5. Recruitment of staff to manage all the systems and server configurations
- 6. Testing and analysing critical elements and customizations for changes



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### 4. Intellectual Property Strategy

It is necessary to protect the Intellectual property in order to enable the Institute to earn recognition and financial benefits. The rationale for IPR lies in the need to create awareness about the importance of IPRs as a marketable financial asset and economic tool among the faculty, students and research scholars of the Institute.

As on date, 30 Patents/Trademarks have been granted and about 51 are in applied status. During the year 2014 an Intellectual Property Rights (IPR) Policy Document was published by the Institute for the benefits of the stakeholders. The document was approved by the Board of Governors at its 55th Meeting held on 07.04.2014.

To take care of the activities related to patent filing and evaluation, copyrights, design and other intellectual property rights, it is proposed to create an exclusive IPR Cell. It shall encourage, protect, manage and commercialize Intellectual Property such as Patent, Copyright, and Trademark etc.

- To educate faculty about the procedure of patent filing.
- To create awareness about IPR among the faculty and students.
- To conduct workshops, seminars, Guest Lectures on IPR
- To enhance research and patenting culture at BMSCE
- Commercialization of Intellectual property such as Patents, Copyright, Trademark etc.
- Since patenting is expensive, efforts should be made to get the patent filed through other funding agencies etc.
- Any other related functions/duties.

The IPR Cell would consist of: The Principal, One External Expert, Concerned HODs and Finance Officer or his nominee, Director R&D (Convener). The members shall meet once in 6 months to review the progress.



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# 5. To Promote Consultancy services in all Departments/Disciplines

The institute encourages its faculty to undertake consultancy work through B.M.S. Centre for Engineering Consultancy (BMSCEC). The Centre is presently headed by a faculty from Department of Civil Engineering who assumed charge during August 2019. The institution has also developed a consultancy and revenue Sharing policy.

During the last five years (2013-14 to 2017-18), 431 consultancy projects worth Rs. 233.35 Lakhs (Average for five years – Rs.46.67 Lakhs) has been completed.

The Revenue Generation through consultancy projects is one of the standard parameters and metrics prescribed by NIRF/NAAC/NBA/VTU and all other assessing agencies.

It has been observed that consultancy is primarily active in few engineering domains. The Institute needs to extend it to every domain namely Engineering, Management and Science. in order to harness the consultancy potential across departments, a suitable framework to support consultancy activities need to be established. This will help the Institute to enhance the outcomes/ revenue generation through consultancy.

- To provide an inclusive environment for promotion and support of Consultancy Activities
- To Liaise between the institute and industry/ government / non-government agencies to undertake projects with specific problem of short and long term duration. To enter into necessary MOU and agreements
- To create and maintain database for expertise of the College faculty and facility by getting inputs from respective faculty/departments
- A consultancy Brochure (both Institution level and Department level) should be created and published. The Brochure shall contain Testing facilities, core service areas, expertise available in carrying out necessary testing and consultancy services etc.
- To Propose dedicated exclusive laboratories for testing and associated services
- Any other related activities.



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### 6. Introduce New UG and PG Programmes

To be in the forefront of global technological advancements and to meet the current and future industry requirements, the institution continuously needs to offer diverse courses. This will provide the student community opportunity to fulfill their education needs. The institute shall introduce new programmes of study (UG & PG) with a design to meet the ever changing industry demand.

# 7. Enhance Placement by Core Sector Companies

The Training and Placement Cell handles all aspects of campus placements for the graduating students at BMSCE. The department is well equipped with excellent infrastructure to support every stage of the placement process. Arrangement for Pre-Placement Talks, interviews, Group Discussions etc. are well handled. The cell has emerged as a favoured destination for many National and Multinational companies who regularly recruit fresh talent nurtured from our Institute. More than 200 reputed Companies visit the campus every year. More than 90% of the eligible Students get placed. However, it is observed that only fewer students get placed in core areas/domains

- There is a need to focus on core sector industries and refrain from overreliance of IT. The assessing agencies (NBA/NAAC Etc) have observed that placement scenario in core domains is very limited in non IT programmes. Necessary measures to improve output in terms of placements in core domains may be pursued.
- To organize a "Start-up placement day" with an aim to sensitize the student's about the opportunities in start-ups. The cell needs to invite successful start-ups for campus placement.
- There is also a need to increase engagement for placement for Postgraduate students across disciplines.
- A Skill development unit may be added to the cell with an objective to provide training to the students to enhance their Employment/ Self-Employment opportunities. The unit will also try to implement various government and nongovernment



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### 8. Foreign Language Programme

As the world comes to India and Indians are making a global impact, the knowledge of foreign languages provides our graduates a definite edge over their technical counterparts.

- The knowledge of foreign languages will be an asset for those who intend to join multinational companies and also those looking for opportunities abroad.
- The advantages of learning foreign language also include confidence, creativity, new career prospects and improved relationships.
- The language laboratory can also facilitate foreign language learning where students have access audio or audio-visual materials.

The Institute may propose to establish a Centre for foreign languages (CFFL) for the said purpose. The centre will facilitate customized courses in French, Japanese, German, Mandarin, Spanish and others. It will also facilitate the short term certificate courses for students across domains.

## 9. Recognition of Additional Research Centers by VTU

Presently out of 17 Departments (excluding BE-Aerospace Engineering), 14 Departments are recognised as research Centres by the University (VTU). 111 PhDs and 20 Master scholars (by research) have been produced through research centre till date. As on date, 331 PhD Scholars are pursuing their doctoral research under 134 recognized guides.

It is proposed to get recognition of remaining Departments of UG- Electronics & Instrumentation Technology, Medical Electronics and MCA as research centres by the University. The details of total number of faculty in the said departments and number of faculty possessing PhD degree is noted hereunder

SNo	Dept	Total Faculty	Faculty Possessing
			PhD Degree
1	IT	10	04
2	ML	10	06
3	MCA	12	04



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#### 10. Global connect

In the globalized society, international collaboration/linkages are paramount to make BMSCE a global player.

It is proposed to have a single point contact to support the following aims.

- To have meaningful formal relationships with foreign institutions.
- To identify and explore areas of cooperation and linkages with reputed foreign institutions.
- International partnerships primarily in the areas of joint research, curriculum planning/Development / implementation/delivery, exchange of publication, organizing conference/seminars/workshops etc.
- To explore the possibility of faculty and student exchange programmes. To begin
  with, linkages with neighboring countries namely Srilanka, Singapore, Malaysia,
  Nepal, Japan etc., may be looked into
- To undertake academic, cultural and industrial tours.
- Other related activities

# 11. Technology and Innovation Club

To infuse thinking in the minds of students and polarizing thoughts into the process and thereby into a product, it is proposed to establish a Technology and Innovation Club.

- The Club shall aim to inculcate the culture of innovation amongst students (irrespective of their discipline/year of study) and encourage them to generate new ideas.
- The club shall create a vibrant knowledge Network of students across departments/disciplines.
- Coordinate all the activities related to innovation with the departments.
- Help the students in bringing up their innovative side and come up with great ideas, discuss with others and plan its execution.
- The students shall get an active platform where they could display their ideas.
- To conduct regular events, discussions and competitions etc.
- To spread the concept of innovation among students within the campus.
- To motivate, support and mentor the innovative ideas of the students.
- Other related activities
- A Club Mentor will be identified for the said purpose.



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### 12. 75% of faculty with PhD Qualification

The Institute has always focused on quality of teachers that lead to quality of education and hence the graduating students. The institute has progressed in having faculty achieving the highest qualification from 2013, the institute HAD a total of 315 faculty members, of which 91 (26 percent) were PhDs. Presently out of 359 faculty, 207 (57%) are PhDs. The institute aims to have/achieve 75% of faculty with PhD Qualification in the next five Years (2025). The institute proposes to continue its endeavor to recruit faculty with PhD from premier institution in specialized area/industry expertise. Further, the institute shall also extend the required support to the registered faculty to complete the PhD.

### 13. Accreditation of Laboratories

Engineering education is incomplete without modern laboratory practices. The laboratory practice has been an integral part of engineering education;. Most engineering instruction take place in the laboratory and it demands the active use of knowledge and skill. The emphasis on laboratories has increased many folds over the years. It is aimed to get formal recognition of competence of laboratories (few selected laboratories to start with) by an Accreditation body for better control of operations to ensure a sound Quality Assurance System.

# 14. Strategic Plan Progress Committee

It is proposed to have a Strategic Plan Progress Committee with an aim to monitor and communicating progress on the plan.

- To place responsibility, timelines, and specific work with an aim to ensure that the plans are implemented
- To maintain documents related to the strategic plan, goals, initiatives, and accomplishments.
- To review the progress and challenges in implementing the strategic plan
- To prepare the compliance report on the extent of compliance for the strategic plan once in a year.

### 15. Societal and Green Initiatives

As an institute of repute B.M.S. College of Engineering should be looked upon as a model institute in helping the local community by addressing the issues that needs solution. It also should take the lead and sensitize the local community and the larger society in creating awareness about the need for caring about environment. The major activities planned hereunder are

- 1. To Adopt a village
- 2. To encourage students take up community based projects to help finding remedies to plaguing issues



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- 3. To create an eco-friendly environment by reducing / banning plastic usage
- To take up projects related to renewable sources of energy (solar power), Alternate sources of energy
- 5. To take up special initiatives on rain water harvesting and recycling of water,
- 6. To involve students creating awareness about Road safety, health and hygiene, and pollution
- 7. To produce bio-gas out of large amount of kitchen waste generated every day in the College Hostels.
- 8. To conduct Green and Energy audit on a regular basis

After due deliberations, it was decided to circulate the draft plan among the members for their suggestions and feedback, inputs and ideas on the draft plan. The members may send their feedback Director, IQAC through email: <a href="mailto:iqac@bmsce.ac.in">iqac@bmsce.ac.in</a> on or before 08.01.2021. The members may also drive new ideas. The new ideas (if any) may be submitted alongwith action plan, targets and probable outcomes

The Meeting concluded with thanks to the chair.

B. M.S. College of Engineering, Bengaluru