

# DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY STRATEGIC PLANNING AND ACTION PLAN (2016-2021)

This document is prepared for strategic planning of the First State Technical University in the State of Maharashtra as per the Dr. B.A. Technological University Maharashtra Act No. XXIX of 2014 along with the Action plan for Administrative reforms, Academic excellence, Research & Innovation, Infrastructure development and Social Relevance





## DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY STRATEGIC PLANNING AND ACTION PLAN

### विद्यापीठ मीत

बिंदू मनाचा सिंधू होईती, करू अथक साधना ज्ञान रवीने तिमीर हराया विकसित हो रे मना !!

अभिमंत्रित है ज्ञान निकेतन इथै कराया हृदय समर्पण भीमडयोतीची, सावित्रीची विश्वात्मक त्या मनकरूणेची येऊ उरी चैतना ! विकसित हो रे मना !

शिवतेजाने उज्ञ अंबर तरंग त्यांचे इथे निरंतर शौर्य धैर्य अन् पराक्रमाची सह्यगिरीतील त्या माथैची क्ज़ क् संक्षावना ! विकसित हो रे मना !

सरस्वतीच्या कृपाप्रसादे, आयुष्याचे फूठ उमठू दे ! कर्तृत्वाचा दीप उजक् दे ! सत्यशिवाचे बीज बहरू दे ! आत्मशक्तीचा सूर ठाभू दे ! देऊ रूप जीवना ! विकसित हो रे मना !

गीत : प्रविण दवणे संगीत : श्रीधर फडके



## **CONTENT**

Vision and Mission
Administrative Reforms
Academic Excellence
Research and Innovation
Opportunities
Infrastructure
Global Reach





#### **VISION**

The University is committed to becoming a leading 'Center of Excellence' in the field of Engineering, Technology and Science as a seat of learning with a national character and international outlook

#### MISSION

The University is committed to provide quality technical education, research and development services to meet the needs of industry, business, service sector and the society.



As the State Technical University we aim to work most effectively when motivated by the common values- Openness, Commitment, Integrity, Innovation and Success in Societal relevance

#### **Openness**

The University is open to all and the inclusiveness embraces diversity, respecting the perspectives and contributions of all, students, faculty, staff and society

#### Commitment

The Faculty, Students and Staff are committed to the mission of the University of providing quality technical education and to become a 'Centre of Excellence' in engineering Education

#### Integrity

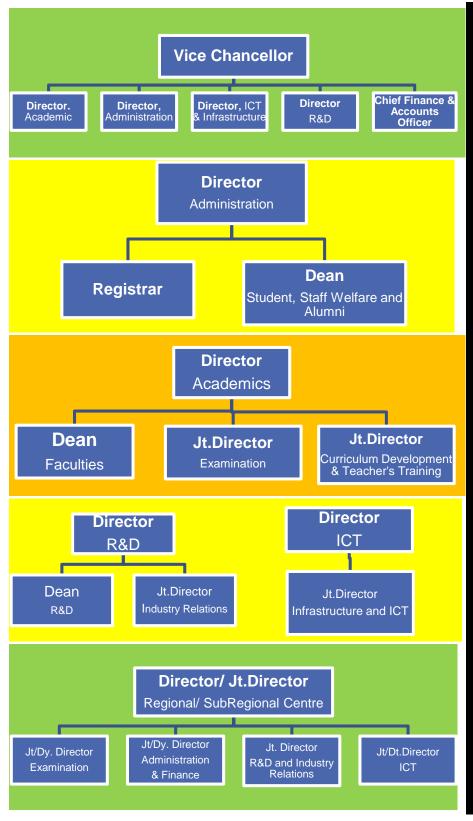
We agree to be consistently honest and fair in our dealings with others, respect each other's interests and abilities to work together towards a common goal of achieving excellence.

#### **Innovation**

We aim to innovate, espouse the academic rigour and work together to find local solutions to the problems facing the society but having global reach.

#### Success in Societal relevance

We continually strive to be better by applying creative solutions to problems in rapidly changing technology landscape. We commit to respond to the needs of colleagues, students, research funders, sponsors and visitors in a helpful, timely and sensitive manner.



## ADMINISTRATIVE REFORMS

The University shall have a decentralized administrative structure of Main centre, four Regional Centres at Mumbai, Pune, Aurangabad and Nagpur along with five subregional centres at Amaravati, Jalgaon, Kolhapur, Nanded, and Solapur. Other Centres may be added over period as needed.

The Main Centre shall four Directors-Academics, Administration, ICT and Research and Development supported by Joint Directors, Registrar, Deans, and Chief Finance Officer in respective areas.

The Centres shall look after the functions such as Examination, Research & Development and Industry relations, Training, Student Grievances, etc.

The University and Centres shall work through the e-Governance system and MIS with robust State-of-the-Art ICT infrastructure

#### **The Director- Academics**

- (i) Planning of academic activities in the University departments and affiliated colleges, conducted Institutions,
- (ii) Curriculum development with support from Deans of faculties,
- (iii) Formulate the policies and development program of the faculty
- (iv) Training of teachers in University departments and affiliated colleges,
- (v) Coordination and conduct of examinations, declaration of results in time,
- (vi) Maintenance of academic standards in the University departments and Affiliated colleges,
- (vii) Accreditation of courses in the University departments and in affiliated colleges,
- (viii) Admissions of students in courses,
- (ix) Appointments and approval of faculty in affiliated colleges and University departments and conducted Institutes,
- (x) Student's academic grievances,
- (xi) Convocation and
- (xii) any other matter related to Academics

# The Director- Research and Development and Industry Relations,

- (i) Promotion of research and technology development,
- (ii) Undergraduate and post-graduate research projects,
- (iii) Industry coordination and collaboration between the colleges under the University, and with other research and academic organizations,
- (iv) Transfer of technology,
- (v) Maintenance of research quality in university departments and affiliated colleges,
- (vi) Coordination of resources for high quality research,
- (vii) Interaction with industry,
- (viii)Patents and other intellectual property matters,
- (ix) Faculty and students training in Industry
- (x) Developing networking among university departments and affiliated colleges, Other universities and organizations, in India or abroad
- (xi) any other matter related to research and development in Technology and Engineering

#### **The Director- Administration**

- (ii) Administration of the staff and faculty,
- (iii) General discipline in faculty, staff and students,
- (iv) Welfare of staff, faculty and students,
- (v) Infrastructure development at the Main Centre
- (vi) Coordination with the Department of Higher and technical education of the Government of Maharashtra,
- (vii) Security and maintenance of facilities at the center.
- (viii)Coordination with regional and subregional centres.
- (ix) Affiliation of colleges & Recognition of Institutes
- (x) Appointments of staff,
- (xi) Contracts for outsourced services, and contract staff
- (xii) Maintenance of administrative records and
- (xiii) any other administrative matter that the University might be dealing with

The First Statutes of the University have been prepared and submitted for approval of the Chancellor, His excellency, Honorable Governor of the State of Maharashtra. The code of conduct for Teachers and Officers has also been prepared

#### The Director- ICT

- (i) Establishment and maintenance of ICT infrastructure for the University and regional centres and subregional centres,
- (ii) Development and maintenance of State wide MIS system for affiliated colleges, university departments, for academic profiles of students and staff,
- (iii) Tracking Teaching and learning processes and data analysis,
- (iv) Maintenance of web related services for faculty, staff, students, alumni and industry,
- (v) Conduct of online examinations and evaluations,
- (vi) Submission of data to regulatory bodies such AICTE, UGC, NIRF, MHRD etc.,
- (vii) Data analysis of examination results,
- (viii) Development and maintenance of network communication within University and between the Centres,
- (ix) Development of ICT systems for functioning of the University and
- (x) Any other matter related to ICT.

#### DEANS OF THE UNIVERSITY AND THEIR RESPONSIBILITIES

Dean **Faculties** 

- Foure Deans (One for each facluty) (Engineering & Technology, Pharmacy, Architecture, and Hotel management and Catering Technology)
- Responsible for maintenance of quality and standards of education at UG/PG
- Grievances of UG/PG students regarding the enrolment, eligibility, migration, scholarships, research, studentships or fee-ships and terms of admission to University examinations

Monitoring and coordinating research and development in University departments

Dean Research

and

Developme

 Innovation in University and Affiliated colleges Undergraduate Research practices

and affiliated colleges,

- Incubation Centres

Dean Student,

Staff

velfare and Alumni

- Policies for Development of welfare scheme and execution for welfare of staff and students
- Networking with alumni, Database, career tracking,
- Mentoring of existing students
- Distinguished Alumni

#### **Board of Examination**

Director-Academic (Chairman)

Jt.Director-Examination Dean - Faculties (at Main Center)

Directors (at Regional Centres) Jt.Directors (at Regional Centres) Dy. Directors (at Subregional Centres)



#### **Responsibilities**

- Appointment of examiners for setting question papers and assessment of answer papers,
- (ii) Printing and distribution of the question papers.
- (iii) Conduct of the examinations in the University and affiliated colleges in the Regional centres and Sub-regional
- (iv) Coding and scanning answerbooks,
- (v) Online evaluation of the answerbooks through examiners, and timely declaration of results and results analysis
- (vi) Student's grievances related to examinations and results and Reevaluation
- (vii) Compilation and Analysis of examination results

#### **DEPARTMENTS OF UNIVERSITY**

**Chemical Engineering** 

**Civil Engineering** 

**Computer Engineering** 

**Electrical Engineering** 

**Incubation Centres** 

Electronics and Telecommunication Engineering

**Information Technology** 

**Mechanical Engineering** 

**Petrochemical Engineering** 

Curriculum Development and Teachers' Training Centre

**Physics** 

Chemistry

**Mathematics** 

**Humanities** 

#### SCHOOLS OF UNIVERSITY AND CENTRES

	School of Interdisciplinary Technology Development		
	School of Hotel Management and Catering Technology		
	School of Business Management		
	School of Interdisciplinary Sciences		
<u> </u>	School or Earth Sciences and Marine Sciences		
	School of Architecture		
	School of Health Sciences		
	Center for Innovation, Product design and Entreprenurshi	р	

The Schools and Centres shall promote interdisciplinary culture with focus on PG courses and research. The appointments in the Schools shall be tenure based, initially for three years and subsequently five years, and performance linked.

The faculty members in the Schools have to contribute to the growth of the School and Centres in terms of research projects, generation of funds from government agencies and industry.

The continuation in the school shall be linked to performance in terms of funds generated, number of PhDs, research publications in indexed journals as API, interaction with industry and professional bodies, laurels brought to the University and of course quality of innovation in pedagogy.













#### **ACADEMIC EXCELLENCE**

The University has a well established choice based credit system. The number of core courses in each course has been restricted to 55% of the total credits while electives in wide range of subjects shall be offered from third semester to each class.

The courses are being designed on the basis of top engineering Institutes in the country as models to attain the academic excellence.

Each Department has now an Advisory Committee of three experts from academia and three experts from Industry with rich experience in respective areas and specialized training.

Faculty members shall also go for internship in industry for a period of four-six weeks getting State-of-the Art practical knowledge.

We will improve our knowledge base to match the requirements nationally and internationally, to see that our students get the best of the opportunities globally.

Our emphasis shall not only on producing employable graduates and post-graduates but also on generating entrepreneurs to meet challenge of 'Make in India' for self reliance and competitiveness for local industries.

We aim to make learning an enjoyable experience and quest for new knowledge a habit in our students. Building teams and Project based teaching and learning processes will be hallmarks of the academic activities of the University. The curriculum will have inbuilt interdisciplinary approach for overall development of the graduates and postgraduates.

We will monitor and enhance our teaching and assessment methods continuously and keep up with the latest technologies.

We should remain committed to the Student's engagement to address their issues in reasonable time frame. Major changes to the systems and procedures are required to change the students' experience. We need to develop flexible learning places, virtual learning environments, multimedia and interactive content and extend the campus WiFi coverage. We need to learn new ways of developing teachings in response to changes in learning and teaching patterns.

#### **Research and Innovation**

Developing research strength and multi-disciplinary activities

It is essential that we develop and support research activities that have local relevance but global reach. We need to invest heavily in our research infrastructure and improve our internal processes to attract the best talent to be a University at the forefront of the cutting edge research.

We will have to demand strong research culture and effective leadership in every Department and affiliated colleges. We will have to establish performance based incentives to the faculty in all disciplines and celebrate excellence in innovation. We need to push boundaries of science and technology to be relevant.

The areas of research should be interdisciplinary. The Schools of the University shall provide access to research project teams of state of art research facilities, which the research teams have to contribute to during their stay in the Schools. We need to exchange knowledge with others where we do not have the expertise, to strengthen the activities of the Universities and affiliated colleges.

The Departmental faculty will have dual appointments in the Schools depending on their contributions in terms of research funding. The affiliated colleges' faculty too will have access to the facilities based on collaboration and cooperation with the University faculty.

The emphasis shall be on development of products, prototypes, processes and services that will have an immediate impact on the society and globally. The benefits of the research should reach to the local society in short term and to the state in longer terms.

The Schools shall have mandate of developing technologies for potable water, health care, and green energy at affordable cost, maintaining biodiversity and to improve the global competitiveness of the Indian economy with spirit of entrepreneurship in young engineers and technologists.

We'll also encourage research networks that bring together researchers to develop their common interests in a strategically significant research theme. Such networks will help build research communities, establish external presence at national and international presence and apply for funding.

We need to expand our post-graduate community and attract the best talent for post-graduate research, even from international sectors. We need to develop endowment funds to award scholarships that support out research priorities.

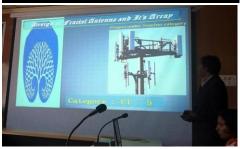






















# Research and Innovation

We need to develop reputation among peer Universities for quality of teaching and student satisfaction.

We need to recognize and reward our faculty for their excellent teaching, research and invaluable contributions to course curriculum development. The research brings in a fresh knowledge, understanding the information, and most importantly application of knowledge to practical applications. Undergraduate and postgraduate research will become a norm with industry linked live project in the final semester.

Innovative post-graduate programs are need of the hour that can broaden the students' horizons and prepare them for exciting careers worldwide. We have to develop multilateral partnerships with other Universities in the State or throughout the country and even internationally for collaboration in research and post-graduates and research student training.

The University should make right connections to learn from other for best practices that make other organizations better and try to reach at the same level without reinventing the wheel. The focus of such partnership can be providing training and learning new methods, integration of other sciences with engineering sciences, and eventually collaborative research projects and joint PhD programs.

We will have to develop strategic alliances and strong academic and research linkages within the University Departments and affiliated colleges, supported by linkages with WORLD CLASS research intensive universities across the State initially using academic, business and alumni networks. These strategic alliances should bring mutual and sustainable benefits to the University. We even should aim for bringing in International students to the University. Also provide opportunities to our students to live and study overseas.

We will have to develop a portfolio of high quality collaborative research programs with a range of strategic partners in national and international networks.











#### **Opportunities**

The University is situated in biologically rich and diverse area. The University has all major disciplines of engineering and with introduction of Pharmacy can reach to the life sciences.

With a conglomerate of all engineering disciplines, a diverse array of expertise with faculty members in the University Departments and affiliated colleges, and half a million talented youngsters throughout the State in the training stage, the University has huge potential to reach excellence in any area.

The University with appropriate research and incubation infrastructure, can harvest a rich bounty of innovation products and processes that in turn can fuel the future growth of the University.

The proximity of Chemical industries, Automobile and Steel industries, Software and Automation industries, in and around the University and its regional Centres can provide opportunities to work on live industrial projects for the faculty and students alike. Training in live Industrial environment for faculty can help develop contemporary technical education in the University and colleges, improving the employability of the graduates and post-graduates. The students will leave with qualifications sought after by employers worldwide.

The rich biodiversity of the Konkan region and vast local knowledge of traditional medicines are yet unexplored area where scientific input can add big value.

The water management in area that sees highest rainfall is another challenge that can reap dividends in longer run. The solar energy can be tapped to produce surplus energy.

New agriculture practices can be developed that can stop loss of soil's fertility and regain it for benefit of marginalized farmers at almost no cost. The organic farming can boost the local economy.

Eco-tourism can be developed for people looking for experiences in remote areas, that are known for exotic plants, snakes and scorpions. Conserving the biodiversity in this region of the State can be an equally important opportunity for the University.

#### Infrastructure

Our Administrative block has been awarded a prize but the University lacks significantly in necessary infrastructure today in terms of the Academic blocks, Residences and Hostels, PG laboratories and Research Centres. Investments are, therefore, necessary to build the infrastructure that can attract the best talents.

We have to attract academically talented students and give them intellectually demanding and research-informed education that can prepare them for life-long learning attitude and to contribute as global citizens without prejudices.

The University has prepared a master plan in its silver Jubilee year to augment its infrastructure many old. Investing in the future excellence and diversity of research culture should be priority of the State Government at this stage. We will also approach the industry and government agencies for the support for research infrastructure.

We will have to invest heavily in

- PG Laboratories
- Schools, Research Centre and Training Centre Buildings
- Research Infrastructure
- Regional and sub-Regional Centres
- Hostels and Refurbishment
- Staff residences
- Water management
- Solar energy generation
- Lecture theaters, Seminar Halls, Digital media classrooms, upgrades of laboratories, Video-Conferencing systems
- High end Computational Facility
- Informal learning spaces for students
- ICT and e-Governance Systems
- Health Care Centre
- Community Shopping Centre
- Day-Care Centre
- Sports and Recreation Facilities
- Kendriya Vidyalaya (upto XII).
- Community Kaushal Kendra

The World Class universities have hall marks of abundant talent, flexible governance, supporting environment and team work. The University will have to travel miles to reach these milestones. The journey is difficult, if not impossible.

We need to change the mind-set of every individual associated with this University by putting the University first, well ahead of individual interests, as the major goal.



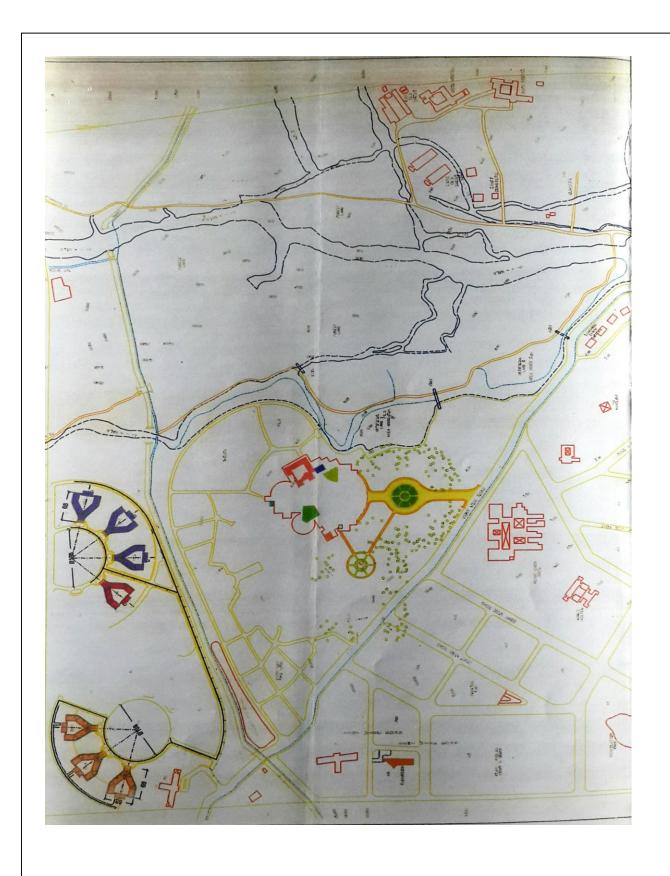


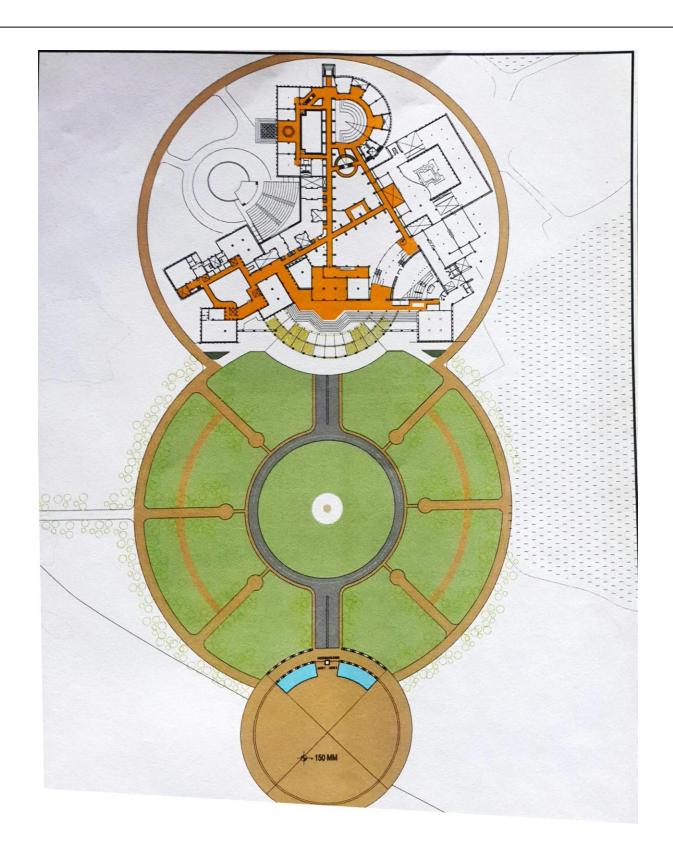


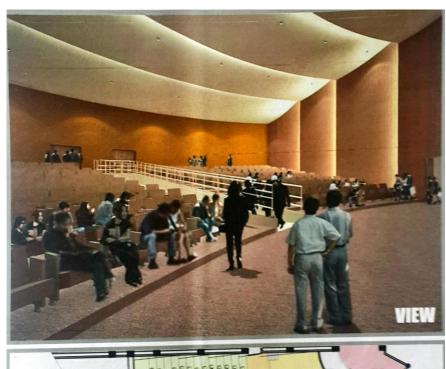


















Proposed Convocation Hall for Dr.Babasaheb Ambedkar Technological University, Lonere-Raigad





## **CONSTRUCTION OF AMPHITHEATER**







#### **Action Points**

Sr No.	Action Needed	Responsibility	Status and path forward	& Likely Date of Completion
1	Appointment and Establishment of Executive Council	State Government	Nomination of Chancellor received Nominations of Vice-chancellors completed 4 Nominations of State Government	31 <sup>st</sup> May 2016
2	Appointment of Registrar	State Government	Nominations are provided to the State Government Appointment from State Government is Expected	31 <sup>st</sup> may 2016
3	Finance Officer	State Government	State Government is supposed to nominate the Finance Officer.	31 <sup>st</sup> may 2016
4.	Creation of Positions of Directors, Jt. Directors, Dy. Directors and Deans and Chief Finance and Accounts Officer and related staff at the Main Centre and Regional/ Subregional Centres	University/ State Government	Proposal for financial outlay for creation of positions to be provided by University by 31st May 2016	15 <sup>th</sup> June 2016
5.	Creations of Departments and Schools and PG Teaching positions at the University Departments and University Schools	University/ State Government		
6.	Appointments of Directors at Main Centre	State Government/ University	Decision to be taken if the First Directors can be appointed by nominations on deputations by the State Government in consultation with Vice- chancellor. A few nominations are already sent to State Government. Additional names are to be provided by VC	31 <sup>st</sup> may 2016
7.	Appointments of Directors at Regional Centres and Sub-regional Centres	State Government	As per the original proposal, the entire Staff is to be drawn from the Universities in the same area	15 <sup>th</sup> June 2016

8.	Appointments of Faculty	Roster to be cleared for	15 <sup>th</sup> June
	and Staff	appointments.	2016
		A joint meeting may be	
		necessary for clearance of the	
		roster for advertisement	
9.	Appointments of Faculty	Advertisement for filling faculty	July 2016
	and Staff	positions	
10.	Teacher's Training Program	Establishment of Curriculum	2017
		Development and teacher's	onwards
		Training Centre	
11	Curriculum Design –		July 2016
	Integrated Approach		onwards
12	ICT and Other		July 2016
	Infrastructure development		onwards
13	Establishment of regional		October
	and Subregional centres		2016
14	Affiliation Process		October
			2016