



Unveiling Excellence

USTM

STRATEGIC PLAN 2020-25



UNIVERSITY OF SCIENCE & TECHNOLOGY MEGHALAYA

Accredited '**A**' Grade by NAAC



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Strategic Plan Document 2020-25

Education is a matter of right for every deserving person irrespective of social stature. Our university is working towards making this a reality. USTM has to become an accomplished global destination for education with world class facilities made available for all at an affordable cost. We have already travelled quite a distance in this direction and we have been able to achieve our Mission Bronze milestone of “to position USTM as a renowned university in the East by 2020” on becoming the first private university in the North East to get accredited ‘A’ grade by NAAC in the very first cycle of NAAC assessment. We have also been ranked 151-200 top Indian universities by NIRF which is a huge recognition in itself.

Various academic bodies of national platform and the Association of Indian Universities has deemed us capable of hosting and participating in various activities like the All India Political Science Congress held by Indian Political Science Association at our university, where many Hon’ble Vice Chancellors of reputed universities and other reputed academicians attended the program.

Now it is time for us to move forward and fulfil our Strategic Plan laid out for 15-20 and redraft the same as our Strategic Plan for 20-25.

Introduction

The University has moved forward with the active engagement from the faculty and staff and has brought several accolades to us in academic as well as non academic shere of university education. When we look back, the last few years of USTM starting 2011 are best defined by growth, credibility enhancement, increasing acceptance and continuing innovations leading to new paradigms in Higher Education in India. With the growth of the university, the expectations of our stakeholders also changed dramatically and thus we need to meticulously identify our key focus areas and lay down deployment plans for these focus areas. It becomes very important to ensure adequate energy and resource behind implementation of deployment plans in these areas.

This University started its classes with only 6 students after it was established under the provisions of the Act, enacted and notified by Government of Meghalaya. However, within a brief period of time, the University has reached newer heights and at present almost 4000 students are pursuing higher education here. Of these, currently almost 2000 students are availing scholarships, 80% of them belonging to rural backgrounds and 57% being girl students. This growth was made possible due to the entrepreneurial zeal of the team with passionate guidance of our leader and we definitely want to keep this enthusiasm alive in us for the future journey.

Today we have almost 60 programs being offered to these students with the help of about 279 faculty members belonging to the 9 Schools namely, School of Applied Sciences, School of Biological Sciences, School of Social Sciences & Humanities, School of Engineering & Technology, School of Business Sciences, Prof Qoumrul Hoque School of Education, School of Pharmaceutical Sciences, School of Allied Medical Sciences and University School of Law & Research.

We have succeeded in collaborating with many universities and organisations of repute and have put forward initiatives together, impacting the society at large and the neighbourhood. Our outreach activities have taken us closer to the people and created a connect with the neighbourhood and we started owning up the villages and create facilities in the neighbourhood to stop school dropouts. We also started encouraging meritorious students from the underprivileged section of the society and created opportunities for their higher education.

Accolades and appreciations have started coming our way towards acknowledgement of our work and that has encouraged us to take our journey further. When Dr. APJ Abdul Kalam Sir came to our university last year (2014), we received immense encouragement for our progress in the sphere of educating the society and also gave his guidance for the way ahead.

However, the areas of concern relate to national rankings & accreditations, faculty development, research outcomes and infrastructural investments of the University, where we need to take serious steps and initiate action.

As we plan for the future, it is imperative to consider the context for the Strategic Plan for 2015-20, which is being developed. It is in this context that the Deans and Directors along with senior faculty members and administrative staff set to dream the future.

Context

Forces driving the Change

The forces that are driving the change in Higher Education are many. Some of these ones have higher effect of the changes in education.

A. Statistical changes in education

By 2030, India is expected to be the most populous nation in the world with about 1461 million people. From an age perspective too, India will be youngest nation by 2030 with a median age of 32 years. India will be a labour surplus nation and an exporter of skilled manpower to labour deficient markets around the world. There is a need to create additional capacity which will take care of the incremental demand for Higher Education if the GER in Higher Education has to increase from current 20% to 50% by 2030. This has to happen across all geographies, income levels and social groups. North East Indian students need to have to increase their share in fulfilling this demand.

B. New Generation students

The new generation students are confident, expressive and technology savvy. They communicate and stay connected through the social networks which today also influence their expectations and aspirations. This is a generation in a hurry whose attention span is no more than 5 to 10 minutes. High on multi skilling, this generation wishes to learn and do many things simultaneously. It is a generation that wishes to experiment and is not afraid of taking risks.

This generation of students find more excitement in non-classroom activities than the classroom, thereby raising a debate on the role of classroom and the campuses in today's environment. So the teaching learning methodologies have to evolve and suit the learning styles of the modern day youth.

C. Technology

Technology is today an important driver of change. It is today at the root of new consumptions and communication behaviour in as much as it is a leveller between the have and the have-nots. Internet/web-based technology, cloud technology mobile technology and tools of collaboration and communication are today defining the learning experience. Open source software has led to the birth of MOOCS in different forms. It has also helped co-create knowledge. This is likely to grow in a significant manner. Multiple forms of digital student engagement are likely to emerge. There is a greater likelihood of flip classrooms changing the entire learning infrastructure of the campuses.

Digital library, campus wide telecast, video conferencing facilities, learning management systems, social networks etc are defining the education and research environment on the campuses.

D. Global Scenario

Today India has a winning chance to emerge as a global hub of education provided the Government of India policies do not prohibit Indian institutions from going abroad or Indian institutions bringing foreign students in India or partnering with foreign universities. India today has a significant opportunity to create demand in higher education in emerging markets. It also has an opportunity to research and innovate products and processes required for the emerging regions. The regions on the margin are a reality in countries like India and more in the north eastern part of India. India offers today opportunities to research in human life and economy. For countries in the immediate neighbourhood, India is a good destination for education, specially the North East India.

E. Competition

Indian education today is a large sector with 720 universities and 47000 and above colleges which includes engineering and management institutions also.

The segment is competitive and the market forces have started determining the future of an institution. The competition is no more restricted to national institutions but emanates from regional universities and institutions also. They may not necessarily have a campus or a partner but technology has today enabled them to reach out to the target segments.

New education concepts like MOOCS or short term courses offered at certificate or diploma level, education on the go (m-education) are the new competitors to the current forms of education. The new assessment models involving stakeholders today is replacing assessment only by the university faculty or complimenting the university assessment.

Competition has made the task of student engagement both offline and online more challenging.

F. Affordability is changing

Students are price sensitive, value seekers and expect education to provide them employability. Education is seen as enabling them improve their standard of living and help them follow their passion. Quality and affordability are yet other considerations that stakeholder demand from institutions.

G. Regulatory Framework

Over a period of time we will see a declining trend of the Central Government in regulating institutions. We are going to be witnessing states becoming more active in Higher Education. Each state will compete with the other for investments in education on the basis of its vision, policy and the infrastructure support. States will compete to get foreign universities to partner with universities in their state. The Regulatory bodies like UGC, AICTE, MCI and PCI etc. are likely to be the national repository of norms for Higher Education. Further accreditation will replace approvals.

It is in the context of these change drivers that the leadership team of USTM has developed vision 2030 and the mission and goals for 2015-20

Vision

To compete globally in making USTM as one of the best destinations of teaching learning community by 2030 through quality education and research.

Mission

Contribute to society by nurturing leaders and unlocking potential of youth through excellence in education, innovation and entrepreneurship.”

Core Values

Competitive & Progressive

Excellence & Creativity

Compassion & Inclusivity

Milestones

We have set few milestones for our journey towards our Vision.

Milestone Bronze - to position USTM as a renowned university in the East by 2020

Milestone Silver - to be one of the renowned universities in the country by 2025

Milestone Gold - to become one of the global teaching learning destinations by 2030.

PRIORITIES FOR 2020-25

Having reached the Mission Bronze milestone, we shall continue to drive the following priorities till we achieve excellence in these areas:

1. Develop collaborations/partnership with national universities of repute for teaching and research excellence and acknowledged for diversity on its campus.
2. Create innovative models in Higher Education that can serve as a benchmark for others to pursue
3. Create a people’s university with inclusive learning experience by targeting meritorious students and experienced faculty with qualifications/work experience or from the partner institutions.
4. Invest in campus development in the North East India and create example in Green, environment responsible and inclusive campus
5. Integrate ICT technology for delivering programs and connecting faculty Resources from reputed and partner institutions.
6. Research at the global level leading to publications, patents, trademarks and copyrights.
7. Take guidance from distinguished educationists from reputed institutions
8. Develop programs that respond to emerging needs of India and other emerging markets.
9. Nurturing the local community and cater to the global community.
10. Focus on student satisfaction and experience on the teaching learning practice in all programs.

Keeping in line with our Vision 2030, we have identified few key focus areas for the University which will help us reach our destination faster. While we intend to undertake this journey towards our vision, we will make sure that these focus areas are addressed during the various plans and activities we undertake. This growth shall be happening in an organic manner and we shall ensure to carefully tread each step for the achievement of excellence in that domain with the involvement of the youth and encourage them to innovate continuously. While the youth is skilling themselves, they shall be motivated to become job creators and not only job seekers and contribute to the society and mankind immensely. Few specific priorities for 20-25 would be as follows:

1. Centre for South and South East Asian Studies
2. Artificial Intelligence and Machine Learning
3. Herbal Products
4. Organic Agriculture and Food Research & Production
5. 2200 quality research papers to be published
6. Making 100 students ready to become civil servants
7. Visit of 5 Nobel Laureates
8. 25 Patent Registration
9. Development of Science Village
10. Mission School for neighbour and staff children
11. Health Education with Super Speciality Hospital connecting to South East Asia.
12. Attraction of International students at list 10% of the total intake

How we Plan to Achieve

1. By promoting faculty financial support and learning for continuous development;
2. Benchmarking academic programs and processes, best in India, to create need based programs;
3. Creating a global learning experience through a mix of student and faculty community from diverse talents, segments and geographies;
4. Developing institutional level partnership with the top universities recognized for its academic and research excellence.
5. Strengthen the bondage with industry and community or social organizations at a regional and national level to mutually benefit and learn.
6. Pursue the agenda of innovation across all Schools and Faculty and build the essence of entrepreneurial mindset.
7. By creating opportunity for meritorious students from under-privileged section of the society and incentivize competitiveness.
8. Work with the regional literary bodies to preserve the local language and culture of the region.
9. Strong feedback mechanism to identify the voice of the students and resolve relevant issues

Strategy Drivers

In this context, we believe, following vectors will influence USTM strategies:

1. Technology
2. Research
3. People
4. Risk to Reputation

1. Technology here implies not just the various technology tools that USTM currently uses for program delivery, management and administration but also includes the tools of collaboration, analysis and engagement with the students, university community and other stakeholders on a continuing basis. One of the perspectives that will guide the introduction of technology is the learner experience. Hence, whether these are courses offered on the various MOOC or similar open software platform or offered in other digital format, the guiding principles will be collaboration and learner experience.
2. The emphases in Research will be the impact it has on society and the individual. Hence, while research publications, applications for Patents, Patents, will be some of the measures to assess how we do on research, the real test will be research leading to product or service development. Hence USTM will have to focus on the entire journey from research projects, publications to product service development. Hence strategies will have to evolve accordingly.
3. People here refer to the following: a. Students b. Faculty c. Staff

The emphases will be to push the bar of performance in all the three segments. The strategy focus will be to make USTM University the first choice of an aspiring student and also the most sought after employer.

4. Risk to reputation is the ultimate test of any strategic move. All proposals will be screened on this important yardstick.

Action Plan

Education

1. Continue to integrate students and alumni feedback on a continuing basis with the developments in curriculum.
2. Provide mentoring support to all faculty members especially those at the junior level.
3. Provide support in the form of human resources, technology and exposure to different sources for development of student centric learning courseware.
4. Provide for development of faculty in curriculum design and delivery.
5. Provide mentoring and counselling services to students to ensure that there are no learner failure.
6. Co-design programmes with industry inputs that will enhance skills of students.
7. Based on Audit of skills in industry, develop programmes at vocational, professional an doctoral level.
8. USTM University will continue to follow a system of continuous evaluation and feedback to the student. This is irrespective of the level at which the student is studying in USTM University. While we wish to create a community of high performer, it to note that USTM University will create enough facilities and support infrastructure to ensure that there are no learner failures. Hence, the success of the teacher of the programme will be determined by the strength of its weakest link that what action has been taken to convert the weakest of the weak performer of the class into a higher performer. This obviously implies an investment in competency building of our students through tutorial and small group activities.
9. Implement NEP 2020 as a torch bearer and facilitate the fulfilment of objectives of Govt of India to reach higher GER and reduce HEI dropouts with modern education system as laid down in the NEP 2020 document.

Research and Publications

Create University Level Structure

- We have University Research Committee (URC) headed by Vice Chancellor
- We have Research advisory committee (RAC) for project monitoring and evaluation
- We have school research committee (SRC) at every school headed by Dean of respective school
- We have Doctoral research Committee(DRC) at every department level chaired by HOD
- Detailed research guidelines to be formulated for smooth conduct of research activities involving these bodies
- These formulation shall be guided by the research policy adopted by the university
- School deans to identify potential researchers that include faculty and PG and UG students
- The research guidelines thus formulated

Responsibility of school research committee (SRC)

- Concepts presented are chosen for further work
- Student interns can identify industry & societal problems (end users) and present the identified problems to the RAC (there could be also other sources)
- Faculty and students can work on the identified problems
- University provides seed money
- External funding for research will also be encouraged
- Outcomes are presented to the RAC

Develop Reward Process

- Contributors are rewarded based on the research throughput
 - Throughput to be assessed by the university research committee(URC) at the university level headed by Vice Chancellor
 - Consider select faculty researchers for suitable rewards such as remission in work load for the next academic semester
 - Consider other contributors for suitable rewards as decided by the URC and RAC
 - Acknowledge researchers in the university research media

Further, focus on:

1. Develop strong research initiative in the areas of Basic Sciences, Applied Sciences and Humanities entrepreneurship, banking and finance, financial markets, innovation in management and organization, retail, supply chain, pharmacy and bio-analytics.
2. Strengthen the existing doctoral programmes in all disciplines.
3. Seek industry funding for the full-time doctoral programme and make it attractive enough for research minded scholars to consider research and teaching as a potentially rewarding career.
4. Create financial and non-financial support infrastructure to facilitate non-doctoral faculty to pursue the same.
5. Create a global network of research scholars, which will help USTM and doctoral students in pursuing their research agenda.

6. University will commit 10% of its annual revenue for encouraging research & innovation. This is over and above the research funding support that the University will seek from industry and various agencies.
7. Provide innovative, state-of-the-art facilities and laboratories that can function as or serve multidisciplinary research needs of faculty community.
8. It would also provide all kinds of support for encouraging publications in research. Policy in this regard will be made known.
9. USTM will seek to encourage joint research and publication between international and USTM scholars.
10. Create infrastructure and resources for research which will impact the development of the state, country and global policies affecting the future of management, science and technology towards sustainable development.
11. Develop & communicate policies related to intellectual property and its commercialization.
12. Recruit and create a cluster of international research professorship across different schools. Create a campus wide web portal to consolidate international research grants and opportunities for the faculty to know about them.

Faculty

1. Source faculty from leading research and academic institutions in a more aggressive manner.
2. Recruit from the graduating students in the doctoral programmes of the leading Universities at the annual research meets in management and different functional areas of management and technology.
3. Connect with the doctoral programmes of leading Indian Universities.
4. Source faculty from leading science and technology institution both in the government and private sector.
5. Create refresher programmes for faculty especially those who have just completed their educational programme and have a research bent of mind in order to enhance their qualifications.
6. Provide a mentorship and assistance programme for faculty within the USTM University system.
7. The class feedback of faculty member in each subjects taught by them should be measured and monitored on a regular basis and incentivized with cash and kind rewards.
8. Performance incentive and recognition for excellence in teaching with a minimum score of 9 on a 10 point scale or 4 on 5 point scale will be put in place.
9. Likewise performance incentive for outstanding research shall be given on the basis of the journal publications indexed in Scopus, Science Citation index and web of science.
10. To encourage international scholarship, faculty will be encouraged to participate in international conferences in their own subject areas. However, these conferences, have to be double blind reviewed conferences. This will be in line with USTM policy statement in this regard,
11. There will be a transparent and objective faculty performance evaluation system in place for all annual promotions and increments and confirmation. Any incentives will be announced based on this evaluation system.
13. USTM Faculty will be recognized among the top ten institutions of higher learning in India based on faculty quality and intellectual capital.

Student

1. Participate in all major regional education exhibitions/fair to promote the university and its programmes in different parts of the country and South East Asia.

2. Strengthen exchange relationship with well-known universities in different countries, which will help bring students from their campus in our programmes.
3. To ensure that the meritorious students are not denied of admission because of lack of resources, USTM will create scholarships and assistantship programme in partnership with industry and government to encourage excellence among students across programmes. USTM University will continue to recognize them through prizes which include cash awards and certificate of merits.
4. Students will be mentored by the faculty. In the context of management students, efforts will be made to have joint mentorship with the industry faculty and executives.
5. To promote an all-round development of the students, USTM University will create a separate programme on soft skills, personality development and languages.
6. Students will also be encouraged to participate in national and international events.

Globalization

The focus of globalization of USTM will be to build USTM brand at the local community level and cater to global community, so as to be one of the best destinations for teaching learning community by 2030. We believe that there are significant opportunities to research and educate in the emerging markets. At the moment the university has MOUs with about 100 plus universities and organizations of repute. The MOUs are aimed at encouraging student and faculty mobility between the two institutions. However it remains a moot question if they would have impacted the university processes or helped in strengthening research and hence global recognition. However, if the university has to play a dominant role in the emerging market as a leader in education from India and to emerge as one of the best universities in Asia and the world, we perhaps would have to consider partnering with one of the world leaders which is globally admired in education, research and student development and by the community in which it exists. Hence, to create global identity for USTM it will be necessary to consider the following vectors:

1. Technology
2. Faculty reputation
3. Research and Innovations
4. Reputation

The goal of the partnership will be to significantly ramp up faculty competencies and research outputs. It will also be to create joint programs and attract students from the world market to Mumbai so as to create a global learning experience. Technology should enable us to connect the faculty from the partner institutions in our programs and also create communication channels between USTM faculty and the partner university faculty. The factors that will influence the choice of a partner will be as spelled out above and how it appears on the above four vectors.

In specific terms, our goals will be to get about 25% of the students from the national market by 2025 and 20% of the faculty from the national market by 2030. This should be possible now with the technology and the partnership with the world leader. In specific terms following will be the agenda from globalization in USTM:

- Creation of sustainable research culture in emerging India
 - o Jointly identify issues for research in common areas of interest
 - o Source research funding for the identified research projects from corporate/SMEs, alumni and global sources of funding including the ones in India.
 - o Some research areas that have and will continue to high priority for India are:
 1. Entrepreneurship
 2. Disaster Management
 3. Corporate Social Responsibilities
 4. Financial Systems and Products
 5. Corporate Governance
 6. Leadership
 7. Stem Cell
 8. Genes sequencing
 9. Material Science
 10. Environment and sustainable development
 11. Microbial research
 12. Plant tissue culture
 13. Health and Medicine
 14. Medicinal and aromatic plants
- Faculty and Student mobility
- Creating global learning experience on our campuses in North East India

The above should help us emerge among the top 200 Universities in Asia and top 500 in the world by 2030.

Community Development

The university will be seen as an active promoter of inclusive growth and for this purpose will actively participate in empowering poorer communities through education and development of employable skills.

Strategy

1. Promote the activities of Outreach Mission in neighbourhood community across North East India.
2. Integrate the activities of departments with Outreach Mission of the University.
3. Actively promote the development of local community by taking some of the activities and programmes to this tribal area, so that the tribal youth is gainfully employable.
4. Create connect with the local literary body like Assam Sahitya Sabha and work for preservation and development of local languages cultures.
5. Showcase the culture and tradition of North East India to the outside world during visits of eminent people to USTM Campus and spread awareness.

This strategy document shall continue to follow the earlier document footsteps while integrating few key changes in the domain of education and research and shall bring a competitive edge in everything we do.

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