



MRSPTU Strategic Plan: 2021-2026

ABOUT THE UNIVERSITY

Maharaja Ranjit Singh Punjab Technical University (MRSPTU), Bathinda (Erstwhile Maharaja Ranjit Singh State Technical University, Bathinda) is an affiliating Technical University, established by Govt. of Punjab vide Punjab Act No. 5 of 2015 notified through Punjab Government Gazette-Extraordinary (Regd. No. CHD/0092/2015-2017) notification No. 5-Leg./2015 dated 12th February 2015 and registered with UGC u/s 2(f).

With spontaneous upswing in demand for quality Technical Education, burgeoning pressure on the Premier Technical University of Punjab, IKG Punjab Technical University, Kapurthala, to mitigate regional imbalance in distribution of Temples of quality Technical Education in the State, for exponential socio-economic growth of the Malwa region, to bridge the gap between demand and supply of employable technical human resource, exigency for creation of a new State Technical University in Punjab was realized. Consequent on the implementation of this Act, Technical institutions of eleven districts of Punjab have been affiliated to MRSPTU with effect from 1st July, 2015 including Barnala, Bathinda, Faridkot, Fatehgarh Sahib, Fazilka, Ferozepur, Mansa, Moga, Patiala, Sangrur and Sri Muktsar Sahib.

The objectives of this new Technical University at Bathinda are to provide, upgrade and promote Quality Technical Education, Training and Research in Technical Education to create entrepreneurship and a conducive environment for the pursuit of Technical Education in close cooperation with industry. In the pursuit of creating excellence in Teaching, Research and Skill Development, the University has to attain highest standards by following and conforming to norms/standards policies laid down by the All India Council for Technical Education, Pharmacy Council of India, Council of Architecture, and University Grants Commission, New Delhi.

As an outcome of the above endeavors, the University is expected to generate and maintain resources through consultancy services, testing services, continuing education programs, National and International collaborations, MoU, transfer of intellectual property rights, etc. MRSPTU will

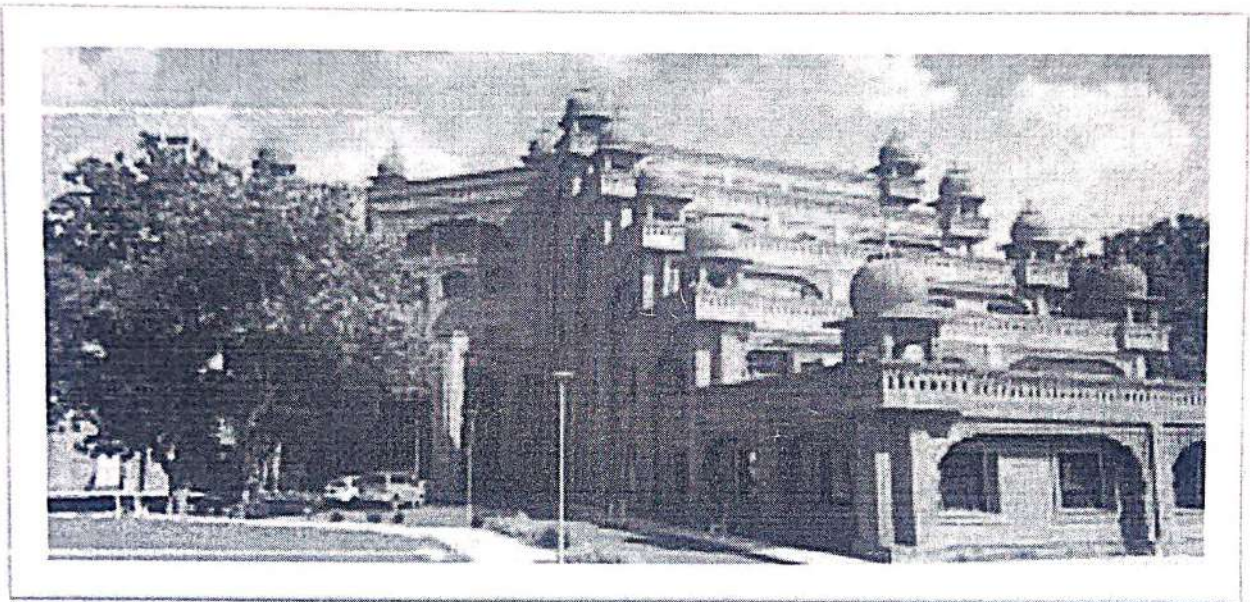
MRSPTU Strategic Plan 2021-2026

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cater to the needs of Quality Technical Education in eleven districts of Punjab encompassed in its jurisdiction. New skill based certificate courses, alongwith UG, PG, and Ph. D Programmes has been initiated from 2016-17 academic sessions onwards in various Faculties of the University.

VISION OF THE UNIVERSITY

To contribute towards the state, the nation and the world through advancement for attaining excellence in technical education and research, and to provide quality human resource having high professional and ethical conduct to serve the needs of the industry and society.



MISSION OF THE UNIVERSITY

- To provide a conducive and inspiring environment for promoting advancement in Technology and Research by fostering freedom, empowerment, commitment, creativity and innovation.
- To provide competent and highly skilled professionals and entrepreneurs to meet the requirements of the industry and society for discovery and dissemination of knowledge.
- To inculcate high moral, ethical and professional values and standards amongst the students.
- To promote research and development in various fields of technical education and establishment of Centers of Excellence in collaboration with national and international institutions, industries and agencies.

REVIEW OF STRATEGIC PLAN: 2015-2021

During the first phase of University strategic plan, it was envisaged to get approvals and accreditations from various professional bodies like UGC, AICTE, PCI, CoA, AISHE, NIRF, AIU, ARIIA, and other National and International ranking agencies. In addition, it was planned to complete University building construction work, start administrative initiatives towards regulations and policy making, establishment of new departments and cells, starting of new academic programs as per concerned statutory body norms, revival of Punjab Institute of Technologies, MoUs and collaborations with industries and other National and International organizations/institutes. Further, for financial sustenance it was planned to make fund mobilization through own resources, grant-in-aids from State and Centre Govt, research grants from UGC, DST, and through consultancy and other related grants.

In line with the first plan, MRSPTU became the first technical University of Punjab to get approval under section 12B and 2(f); at present it is the only technical university from Punjab approved by UGC under 12B that has made MRSPTU eligible to receive grants offered by UGC under various schemes. Further, all required approvals from statutory bodies are already obtained by compliance to the norms specified. Apart from it, University is also providing information to NIRF, AISHE portals. The University has also attained membership of AIU. MRSPTU got ranking in ARIIA in beginner's band during 2020-21. The new University buildings (comprising of administrative block, 6 academic blocks, central library, IT-enabled services center, lecture theatre complex, R&D center and Vice Chancellor's residence) with aesthetic design and architecture have got completed, and eight University Departments have already shifted into new building. During this period, newly established departments- Pharmaceutical Sciences & Technology and Food Science & Technology have started offering various courses viz. M. Pharm in Pharmaceutics and Pharmacology specializations, M.Sc. Clinical research, B. Pharm, M.Sc. Food Science & Technology and B.Sc. Food Science & Technology. Grants of about 5 crores have also been fetched through these departments from various agencies of Govt. of India.

Furthermore, by developing necessary infrastructure, Punjab Institute(s) of Technology at Rajpura, GTB Garh (Moga) and at Nandgarh have been revived with impressive increase in admissions at these Institutes. Regular faculty has been appointed for the former two PITs, who are also looking after the full-time charge of Directors as well. A new Institute, Punjab State Aeronautical Engineering College at Patiala is also adopted and groomed as constituent college, with regular appointment of a Director, offering programs specializing in Aeronautical and Aerospace Engineering, and Bachelor of Management Studies (Airline Tourism and Hospitality).

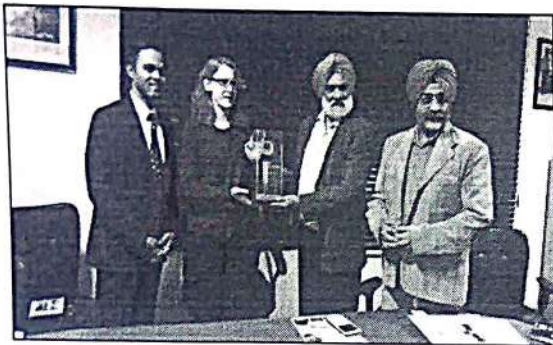


Flexible Choice Based Credit System has been implemented from 2016-17 onwards. Modern AICTE curriculum has been adopted and implemented from 2018-19 academic session onwards. Further, need based modifications are continuously done in curriculum to suit industry demands and based on stakeholders' feedback through various academic statutory bodies of the University. Curriculum design and development is done keeping an eye on statutory regulatory body guidelines in respective studies.

The University has adopted outcome-based education framework by aligning all courses and programs with Program Outcomes(POs), Program Specific Outcomes(PSOs) and Course Outcomes(CO) and developed a quantitative framework for analyzing the attainment levels and understanding students perspectives to achieve academic goals. Details of the same is available at https://www.mrsptu.ac.in/iqac_outcome_attainment.php.

Going by the University vision and mission to achieve excellence and competency, various MoU/collaborations have been signed as planned e.g. with Amazon for training of faculty and students in CLOUD computing; collaboration initiated with Google for Android App development; with Ace Skills, UK, for international skilling and certification. Further, MRSPTU has signed MoUs with renowned industries/academic institutes/training partners viz. IIT Bombay, SAP Student Academy Program, NITTTR-Chandigarh, Central University-Bathinda, GADVASU-Ludhiana, GNDEC-Ludhiana, INFLIBNET-UGC, Central Tool Room-Ludhiana, Engineering Staff College, Hyderabad, Apron Systems P. Ltd., Noida, Red Hat Linux etc. Academic partnership with Foreign Universities and organizations has also been done and MoU signed to start joint certification of undergraduate and post-graduate programs with Thomson River University, Canada, in 2+2 mode, whereby students pursuing B. Tech (CSE, IT) or BCA at

MRSPTU are eligible for B. Sc. (CSE) of TRU after completing first two years form MRSPTU and final two years from TRU, BC, Canada. Similar MOUs have also been inked with Wayne State University, USA (for all Engineering courses in 3+1 mode), Concordia University Edmonton, Alberta, Canada, NorQuest College, Edmonton, Alberta, Canada, and Synergy University, Russia. Details of these MoUs/Collaborations are available at <https://www.mrsptu.ac.in/mou.php>



Fulfilling research oriented MRSPTU vision, Research programs leading to Ph.D. in disciplines of Engineering & Technology, Commerce & Management, Pharmaceutical Sciences, Food technology, and Sciences have been started and are quite well established with regular admissions twice in a year. All relevant academic regulations and ethical policies are well notified and available in open domain. Renovated and upgraded Research Labs are established in various departments resulting in significant increase in quality publications enhancing University's



recognition globally. Intellectual Property Rights Cell for Patents/Technology Transfer,

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Entrepreneurship-cum-Business Incubation Centre and Innovation Cell have been established to foster innovative research and commercialization leading to start-ups from University and have started bearing fruits. Details of the research achievements are available at <https://www.mrsptu.ac.in/IQACAnnualReport.php>



University is actively involved in offering consultancy services to Government/Private/Industrial organizations/agencies amounting to a revenue generation of more than 9.5 crores in last 5 years. Furthermore, University is also empanelled by Punjab State Pollution Control Board. Furthermore, Ministry of Food Processing Industries, Govt. of India has recently sanctioned 2.87 crores for establishment of Food Testing Lab at the University and released the first installment of the grant that will boost the consultancy further in and around Punjab as it shall act as testing centre for various food manufacturing industries and firms.

To upkeep and maintain the academic integrity and standards among all its constituent and affiliated Institutes, many Examination Reforms have been adopted and implemented at the University level like-real time online monitoring through CCTV of examination centres/evaluation centres/coding halls in on-campus as well as affiliated colleges. Software based system is used for grading, result announcements and DMC printing. The efforts have resulted in less than 10% students applying for re-evaluation. To bring seriousness in evaluation process, evaluators are banned for shoddy evaluation work and many centers are black-listed for mal-practices too.

To meet the University mission of fulfilling industrial needs, placement and training cell was established with a full-time Director Training & Placement in position with improved placement scenario. More than 275 students from campus got placements in the last two academic sessions with pay packages ranging from Rs 2.4 lac to 10.0 lac. In addition to this, MRSPTU has successfully hosted and organized five mega Job Fairs under 'Ghar Ghar Rozgar' scheme as per

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the vision of Hon. Chief Minister, to provide good placement opportunities for students from campus and from all over the region. Besides, Campus and Constituent Colleges, the placement will also cater to the affiliated colleges' demand.

To achieve the University vision mission, Professional development programs are regularly conducted at University and affiliated colleges in the form of expert lectures, seminars, workshops, field and industrial visits, educational tours, case studies, surveys, internship and training, conferences, finishing schools etc.. University also entered into an MOU with AICTE for faculty development programs with partial financial support from AICTE for knowledge upgradation of teaching and non-teaching staff members through various successfully conducted programs under the scheme. As a unique initiative, Skill Certificate Courses in 9 disciplines have been designed and introduced to develop practical skills & improve employability/entrepreneurship among students as 'Sandwich Programs in collaboration with leading industries & training organizations. Curricula of these courses has been developed by NITTTR utilizing services of experts from all over India and has multiple Entry-Exit points to improve self-employability. The specialized courses offered are in the area of Plumber, Welder, Electrician, Tools & Die Maker, Computer Maintenance & Programming Assistant, Food Processing, Farm Equipment Technician, Refrigeration and AC Mechanic, Servicing & Maintenance of Electronic Instruments. Most of these courses are offered at PITs with its own industrial training partner to enhance employability of youth.



Many administrative initiatives were taken up to streamline and shape up the University governance mechanism like- Regulations of the University were prepared and got approved from BoG and are in force pending Government notification. Various controlling bodies were put in place such as College Development Council, Academic Council, Sports Executive Committee, Cultural Executive Committee and Advisory Committee for NSS, Board of Controls in each

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academic department, Board of Studies and Faculties in various studies/disciplines have been constituted for smooth functioning of the related works. For transparent functioning, various policy documents, information booklets and guidelines are drafted and implemented. Details of such documents are available at https://www.mrsptu.ac.in/iqac_policy_documents.php. Biometric Attendance System has been implemented in University main campus and constituent colleges. Efforts are being made for complete digitization and transparency in administration, examination, admissions, and in students related activities like registration, documentation related services, fee payments. Such efforts got a boost during the Covid-19 period when MRSPTU created e-repository for on-line teachings, conducted e-examination and e-admissions successfully. In house software for various modules like admission, IQAC, Finance and Purchase, Grievance Redressal etc. are developed and details are available at <https://www.mrsptu.ac.in/IQAC//AnnualReport.php>

For financial sustenance, besides adopting low-cost administrative measures like utilization of existing staff and faculty for administrative duties, in house development of software for admission, examination, and affiliation process is also taken up. Faculty members are encouraged to apply for research funding from various National and International funding agencies of Govt. of India and a dedicated MRSPTU Grant Cell has been created. Faculty has submitted research proposals for over 15 crores to different agencies, and University received research grant of about 9.0 crores. A grant of 35 lac has also been received by Youth Welfare Department of the University under NSS. University proposals to establish an indoor sports complex are at advanced stage of approval for funding.



MRSPTU Strategic Plan 2021-2026

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STRATEGIC PLAN 2021-2026

I. FIRST PART

Objectives & Goals

Although, in the initial phase of University establishment, majority of the work plans and objectives were met; still, as per the laid down University vision and mission in the journey of achieving excellence and to compete globally, objectives that could not be accomplished and/or need to be focused for accomplishing during 2021-26 strategic planning are as follows-

- Improvement in quality of technical education with industrial collaboration
- Emphasis on upcoming cutting edge technologies such as- AI, machine learning, IOT, data analytics, mechatronics, block chain, cyber security, renewable energy, electric vehicle (EV) technology and likewise- keeping in view the approaching 4th industrial revolution to meet future needs of the society.
- Need to popularize these disruptive technologies and motivating Institutes offering these courses through some kind of incentive while granting affiliation. These courses should be offered as open elective available for students from inter-disciplinary/multidisciplinary streams.
- Enrichment of curriculum with more practical component as per industry-specific needs
- Up gradation of traditional classroom infrastructure with smart classroom facilities facilitating e-teaching learning.
- Strengthening of research and innovation Ecosystem for extensive IPR and research outcomes
- Establishment of thrust area based Centre of Excellence in collaboration with leading industries and corporates. One industry sponsored lab in every Deptt.in a phase-wised manner.
- Starting of joint academic programmes and research collaborations with National and International organizations.
- Establishment of central instrumentation facility accessible to all stakeholders
- Establishment of state of art Entrepreneur-cum-Business incubation Centre
- Registration and implementation of Academic Bank of Credits under NEP-2020
- Undertaking transliteration of text books in Punjabi regional language under NEP-2020
- Online and Skill specific learning and courses as per the stakeholders demand







- Strengthening the quantity and quality of students' placement
- Online Courses (MOOCS/SWAYAM) popularization and undertaking teaching load through MOOCs/SWAYAM platform.
- Digitization of Students' record and registration
- Digitization of employees' data, service book, leave record, provident fund/pension etc for easier accessibility anywhere any time.
- Transparency and quick grievance redressal mechanism and e-office implementation
- Reducing power bills by 30-50% in phased manner by exploring potential for further energy conservations and with regular energy auditing
- Students' clubs shall be increased manifolds and strengthened for holistic development of students in line with NEP-2020
- Academic programs in line with NEP-2020 following guidelines of the respective statutory body
- Earning Accreditations and Rankings at National and Int'l levels
- Further Enhancement and Development of efficient waste disposal/e-waste management mechanism
- Improving end-semester results declaration latency
- Obtaining Financial Grants for organizing technical events/faculty development programmes/ workshops/ seminars/conferences.
- Sharing of Centralized Research facilities and Library knowledge resources among constituent and affiliated colleges
- Efficient work culture shall be adopted in the University. Surplus or wastage of resources in any form (manpower/financial/energy) shall be minimised.
- Administrative reforms for simplifying time-consuming office procedures with suitable rewards

II. SECOND PART

Equipment and Infrastructure Upgradation

- Equipment infrastructure except those in upcoming emerging areas shall be modernized through AICTE MODROB/or any other equipment infrastructure related Govt schemes and through possible alumni links/Industrial linkages/collaborations.

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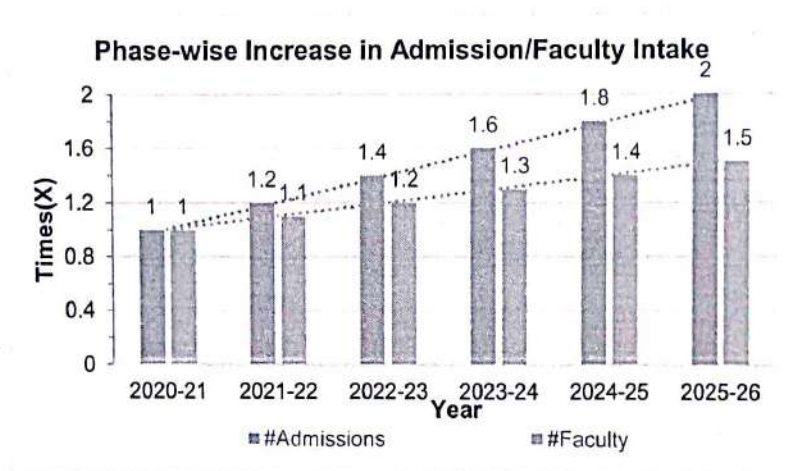
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- Institute share shall be enhanced in testing related consultancy works. This share may be used for Lab infrastructure up gradation, up skilling and reskilling of faculty and technicians in emerging technologies.
- Industry-Institute interaction cell (Corporate Resource Center) shall ensure at least one industry sponsored lab in each Deptt, which shall be upgraded as a Center of Excellence in a phased manner.
- Consultancy wing shall enhance scope of consultancy in streams other than the traditional Civil Engg and Architecture in a phased manner. Any specialized expertise, if needed, shall be developed by imparting needful trainings to the concerned faculty/technician/staff through professional trainings.
- Young PhD holder faculty shall be encouraged and facilitated to apply for various Govt funded schemes for bringing research grants/projects in their area of expertise.
- Infrastructure related State /Central agencies grant schemes shall be actively explored by respective cells/sections

III. THIRD PART

Resources and Financial Planning

- To generate resources for achieving these targets, students' overall admission intake shall be increased by 100% in phase-wise manner (20% increase per year) in the existing courses so as to utilize available faculty resources with minimal increase but doubling the University income on this front.



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- Utilization of permissible MOOCs courses shall be made mandatory, wherever applicable, and especially where shortage of faculty is there. Such courses developed and delivered by experts from reputed National Institutes will ensure quality as well as minimal increase in faculty requirements (not more than 10% per year). Further, University's notified MOOC Policy already recognizes credits earned through such platforms for the award of an academic degree.
- New revenue generating academic programs for working professionals in multi-disciplinary streams shall be started in collaboration with other organizations.
- Affiliation fees, student facilitation and other examination related service charges shall be reviewed periodically.
- Govt. shall be persuaded for starting/increasing grant-in-aid to the University.

In addition, following strategy for the Finance and purchase department is planned

Description	Plan
Preparation of Corpus fund to strengthen the financial position of the university	To start in 2023-2024 with a target of Rs. 15 crore in 5 Yrs
E-office to be strengthened for complete paperless office	To be achieved by 2023-24
Investment of available funds on long term basis so as to get good returns	Continuous process
Funds Mobilisation through Alumni	Shall start in 2022-23 with target of 15 crore at the end of 5 Yrs
Funds mobilisation for need based student scholarship	Shall start the fund in 2023-2024 with a target of Rs. 10 crore in 5 Yrs
Digitization of store inventory management system	To be implemented in 2023-24

