Marwadi University
Marwadi Chandarana Group

INSTITUTIONAL DEVELOPMENT PLAN
YEAR 2023-28

Marwadi University
Marwadi Chandarana Group

CHAPTER - 1

INTRODUCTION

1.1 ABOUT MU

The Marwadi Education Foundation's Group of Institutions (MEFGI) was established as a significant organ of the Marwadi Education Foundation in 2008 under the provisions of the Bombay Public Trust Act of 1950.

The Marwadi Education Foundation is promoted by Marwadi Shares and Finance Limited (MSFL), a leading stock brokerage company in India and Chandarana Intermediaries Brokers Pvt. Ltd. (CIBPL), a top corporation engaged in technical and arbitrage trading in the Indian Stock Markets.

MEFGI was founded in 2009 and it began its operations by offering three professional programmes. The organisation since then has grown from 22 faculty members to 400+ faculty members, 288 students to 11000+ students; 06 Programmes to 60+ Programmes; 02 Lac Sq. Ft built-up area to 10+ Lac Sq. Ft built-up area; 35 companies to 400+ companies visiting for campus placements. The institute is home to 1611 students from 52 countries.

Marwadi University was established by the Gujarat Private Universities Act 9 of 2016 on 9th May, 2016. It has expanded tremendously in terms of students enrolled, degree programmes offered, disciplines of studies housed therein, and teaching and administrative staff.

In the light of changing landscape of education, suggestions made by the NEP 2020, recommendations of UGC and to create a clear roadmap for the Institute, this document for institution development plan is being created.

1.2 MU AT A GLANCE

FACULTY OF ENGINEERING
2016

FACULTY OF MANAGEMENT STUDIES
2016

FACULTY OF COMPUTER APPLICATIONS
2016

FACULTY OF TECHNOLOGY
2016

FACULTY OF PG STUDIES & RESEARCH IN ENGINEERING & TECHNOLOGY
2016

FACULTY OF SCIENCE
2016

FACULTY OF DIPLOMA STUDIES
2017

FACULTY OF LAW
2018

FACULTY OF PHARMACY
2018

FACULTY OF PHYSIOTHERAPY
2019

MUIIR
2019

1.3 PROGRESSION SINCE 2018

TOTAL STUDENTS

2018	2019	2020	2021	2022
3506	4631	5318	6889	8236

PhD SCHOLARS

2018	2019	2020	2021	2022
42	31	30	109	75

JOURNAL PUBLICATIONS DURING PREVIOUS YEAR

2018	2019	2020	2021	2022
74	86	108	90	46

NUMBER OF FUNDED PROJECTS DURING PREVIOUS YEAR

2018	2019	2020	2021	2022
03	10	08	09	28

PATENTS FILED DURING PREVIOUS YEAR

2018	2019	2020	2021	2022
11	05	05	08	29

ANNUAL R&D FUNDING (IN LAKHS)

2018	2019	2020	2021	2022
447.2	595.8	577.3	515.6	175.8

1.4 VISION AND MISSION OF THE UNIVERSITY

VISION

"To foster an environment that empowers people, organizations and societies through education, ideas, research and training"

MISSION

To provide quality education and thereby bring social transformation

To create leaders through innovation and entrepreneurship

To cultivate the culture of research advancements

To imbibe universal consciousness

To stimulate growth through industrial international partnerships

LEADER

L LIFELONG LEARNING

E EMPATHY

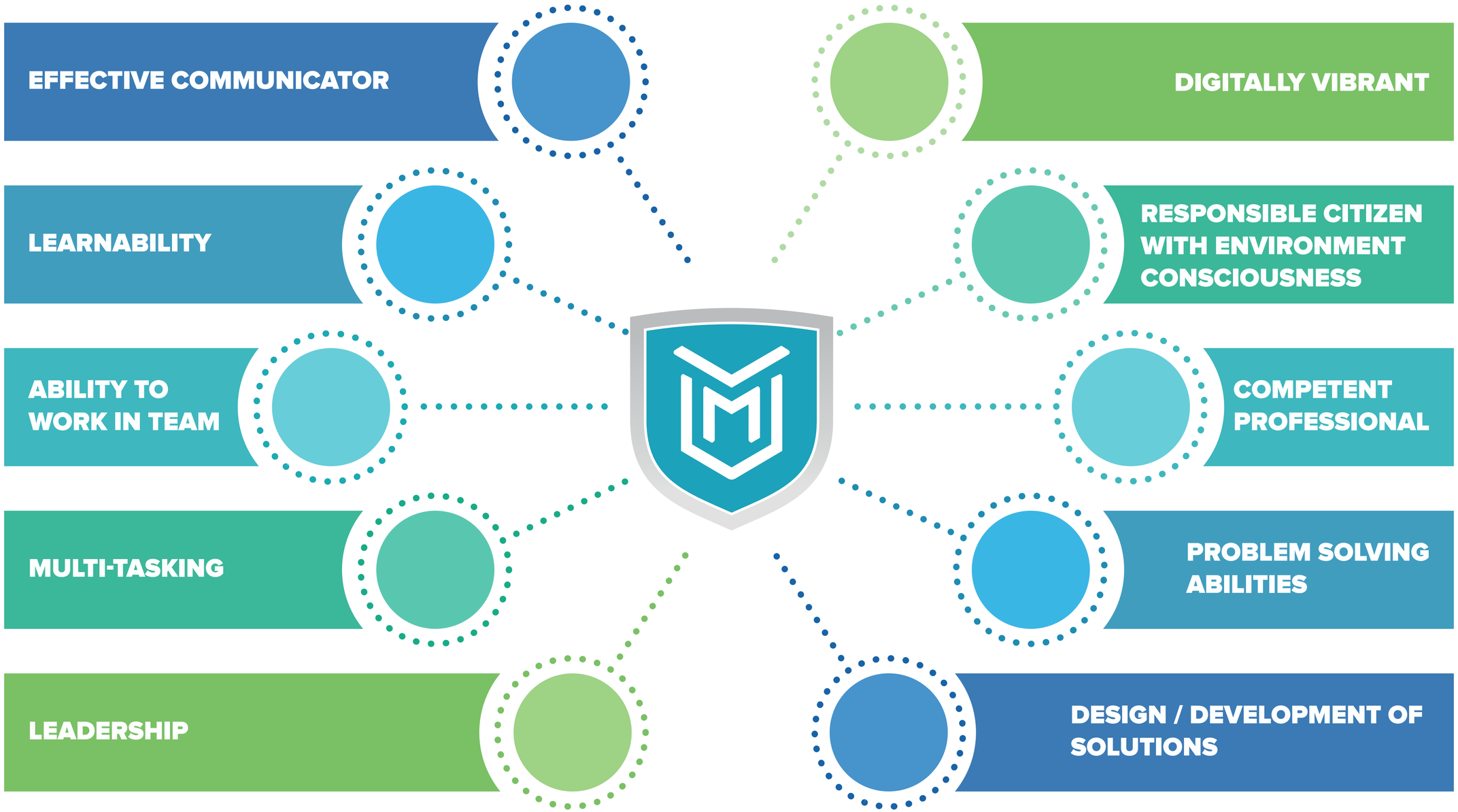
A ADAPTABILITY

D DIVERSITY

E EMPOWERMENT

R RESPECT

Graduate Attributes



1.5 RANKINGS AND AWARDS

- “Rising Star 2022” award - **“Coursera for Campus”**
- GEM 5 Level Certification for sustainability standards - **ASSOCHAM**
- “The Best University” in the region - **Aajkal Educational Award-2022.**
- **“Centre of Excellence”** - Education Department, Government of Gujarat.
- Leadership in Teaching Excellence (Private Universities) - **AICTE (MoE, GOI).**
- “Excellent Band” (University and Deemed to be University) - **Atal Ranking of Institutions on Innovation Achievements 2021 (MoE, GOI)**
- Grant for the establishment of Supercomputer facility - **Gujarat Council on Science and Technology, 2021**
- Top Law School by **Forbes India in the Legal Powerlist 2020** for Faculty of Law, Marwadi University
- Leadership in Community Project Based Learning - **IUCEE 2020.**
- Institutional Leadership Award - **Indo Universal Collaboration for Engineering Education (IUCEE) 2020.**
- High Performer Partner Institute Award 2019 - **Study in India (EdCIL)**
- Best Upcoming University of India - **ASSOCHAM (National Excellence Awards 2018**)
- University of the Year (West) - **Times Now Indian Education Awards 2018.**
- Smart University Award - **SKOCH Smart Education Awards 2018.**
- Excellence in Placement - **World Leadership Federation 2017.**

1.6 SWOC

S
Strengths

- Internationalization and Student Diversity, students of 52 nationalities and representation of 18 states on campus
- World Class Infrastructure and amenities having green and sustainability concepts creating serene ambience
- Indigenously developed University Resource Planning (UniRP) system making University virtually paper free and bringing transparency in governance, reducing admin burden and exchange of real time data
- Centre of Excellence (CoE) status awarded by Government of Gujarat for three years after rigorous screening and assessment process. The youngest and only University outside Ahmedabad region to receive CoE status.
- Dynamic Faculty members from 22 states working towards achieving University vision.
- Learner centric approach and focus on all-round development of the students
- Active linkages with institutions, industries and research organisations to enrich and update curriculum
- Focus on Lifelong learning for faculty and staff
- Every classroom and laboratory with internet connectivity and WiFi across the campus for the blended learning and assessing e resources
- Every faculty is trained on pedagogical aspect of teaching leaning process to achieve academic rigor and attain program outcomes.
- Continuous, completely automated and transparent e assessment evaluation system imparting Choice Based Credit System (CBCS).
- International Relations Cell creating collaboration with foreign academic institutions and creating opportunity for student and staff exchange and promoting joint research, credit transfer and dual degree programs.
- NCC, NSS and community outreach activities and engagement.

W
Weaknesses

- Financial dependency on student fees and limited funds for cutting edge Research facilities
- Alumni Engagement is in its nascent stage as only few batches have passed out and all alumni are at very early stage of their career
- Location Disadvantage: Situated in Rajkot, a Tier III city having very limited Air and Rail connectivity for the businesses to grow and MNCs setting up their units.
- Limited high impact research publications and patents
- Less number of full-time doctoral students
- Lack of autonomy in fees and admissions due to state regulations of Fees Regulations Committee and Admission
- Committee for Professional Courses.
- Inadequate funds for scholarships and appointments of JRFs.

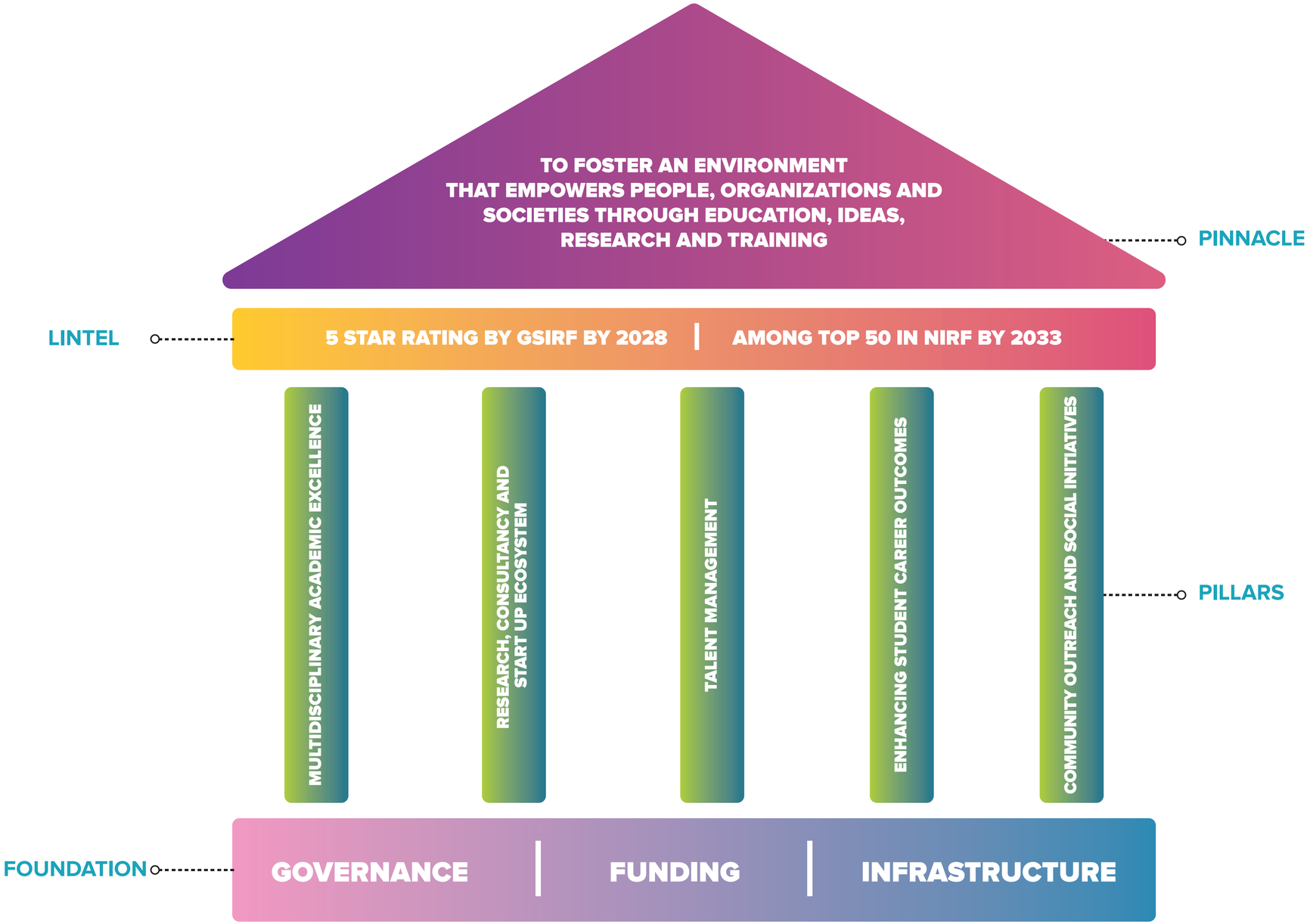
O
Opportunities

- Best in the region
- Growth of the region was seen recently as Rajkot is given Smart City grant, AIIMS, International Airport which will develop eco system of education, placement and investments in the region
- Addressing needs of the industry by creating customised programs and services which can generate additional revenue Developing interdisciplinary programmes
- Increase in international students through Student Ambassador program shows faith of our existing students on the quality of education and respect given to every human being irrespective of their cast, race and religion
- Strengthening Research and Innovation by attracting funds from National and International agencies
- Offering consultancy services in domains of family business, energy, design and manufacturing and establish more accredited laboratories for research and testing
- National Education Policy 2020 focusing on increase in enrolment ratio and promoting quality private institutions at par with Government Universities
- Creating more hostel spaces on campus to enhance student engagement and activities

C
Challenges

- Creation of additional space to promote Art and specialized clubs
- Polarization of education towards Computer Engineering and Information Technology programs and lack of interest towards core engineering and technology programs
- Offering more scholarship
- Attracting and retaining experienced faculty members
- Getting adequate number of full-time Ph.D students for enhancing research outcomes

1.7 THRUST AREAS



CHAPTER - 2

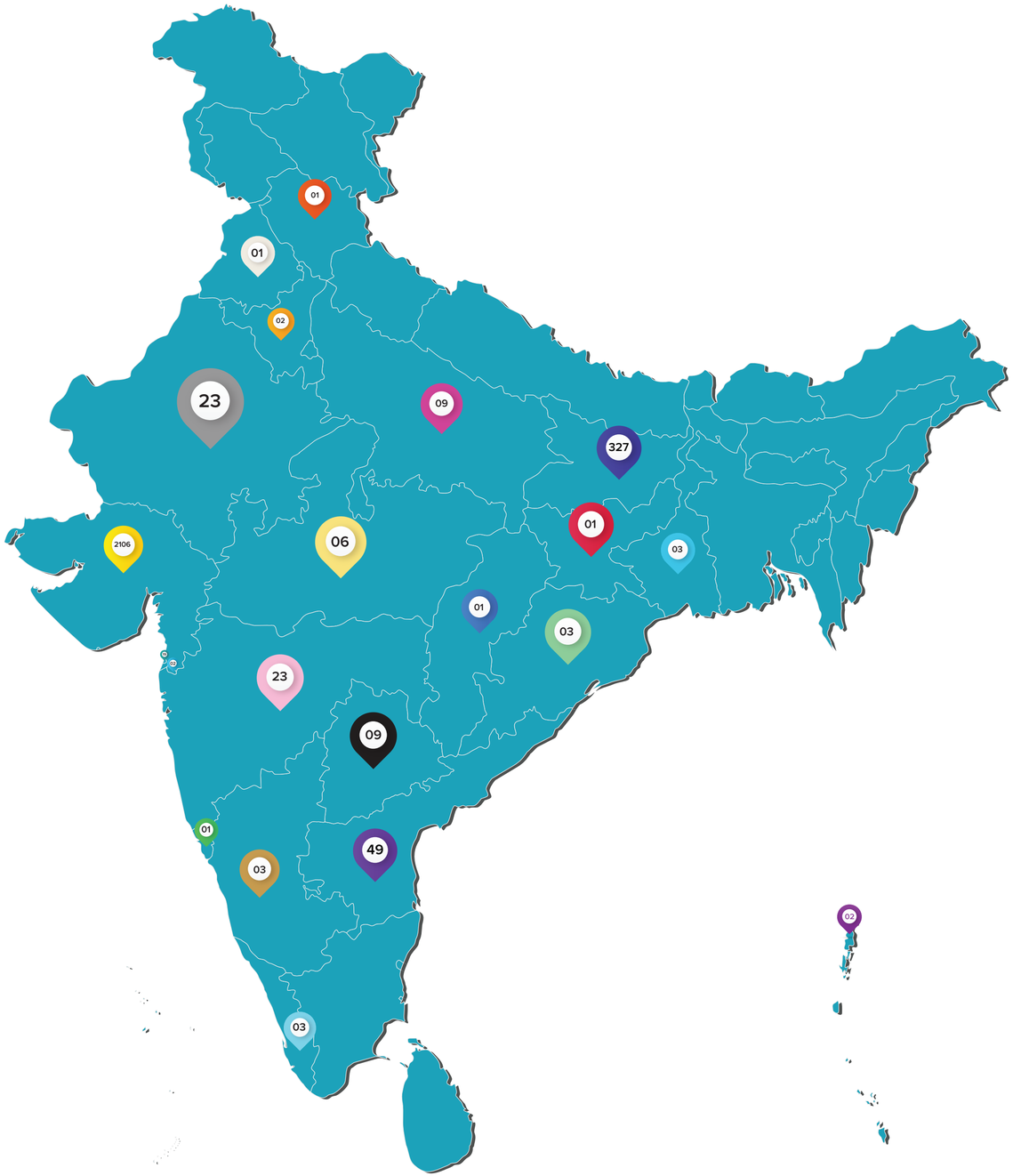
MULTIDISCIPLINARY ACADEMIC EXCELLENCE

2.1 INTRODUCTION

Marwadi University, (hereinafter will be mentioned as 'institution') has been established as one of the prominent institutions of the country offering quality education to communities at large. The institution currently focuses on improving the quality aspects in terms of Teaching-Learning, Assessment and Evaluation by setting up new benchmarks for the sustainable qualitative growth. Since academics is the major determinant of the quality of an institute, a robust planning based on our current SWOC is developed. The institution has many well established Faculty namely, Faculty of Technology (FoT), Faculty of Management Studies (FMS), Faculty of Computer Applications (FCA), Faculty of Law (FoL), Faculty of Pharmacy (FoP), Faculty of Science (FoS) and Faculty of Physiotherapy (FoPT) for delivering quality programs.

2.2 STUDENT DIVERSITY – NATIONAL

As far as the student diversity is concerned, we have students from 21 out 36 states and UTs. Our outreach team has already planned for a better penetration so that the remaining states can also be covered within a span of 5 years. The admission data 2022-23, reveal that we are successful in getting 12% of admissions, outside our native state of Gujarat. We plan to reach to 25% of admissions, outside Gujarat within a period of 5 years.



STATE	NO. OF ADMISSION
Andaman and Nicobar Island	2
Andhra Pradesh	49
Bihar	327
Chhattisgarh	1
Dadra And Nagar Haveli	2
Diu-daman	19
Goa	1
Gujarat	2106
Haryana	2
Himachal Pradesh	1
Jharkhand	1
Karnataka	3
Kerala	3
Madhya Pradesh	6
Maharashtra	23
Odisha	3
Punjab	1
Rajasthan	23
Telangana	9
Uttar Pradesh	9
West Bengal	3

2.3 STUDENT DIVERSITY – INTERNATIONAL

The international outreach initiative has fetched students from 35 countries for the admission year 2022-23. This includes students from SII scheme and also direct admissions. The admission data for AY 22-23 states that we are successful in getting 13 % of admissions, outside our country. This is expected to improve to 25% in the next 5 years.

STATE	NO. OF ADMISSION
Bangladesh	3
Botswana	2
Burkina Faso	1
Burundi	3
Cameroon	9
Dr Congo	4
Ethiopia	15
Gambia	3
Ghana	3
India	2594
Indonesia	1
Ivory Coast	2
Kenya	4
Lesotho	6
Liberia	65
Malawi	7
Mauritius	2
Mozambique	11
Myanmar	50
Nepal	4
Nigeria	82
Niue	4
Papua New Guinea	2
Rwanda	16
Sierra Leone	2
South Africa	1
South Sudan	83
Sri Lanka	2
Sudan	14
Swaziland	8
Syria	6
Tanzania	55
Togo	4
Uganda	23
Zambia	27
Zimbabwe	59

2.4 STUDENT DIVERSITY - GENDER

Looking at the aspect of gender diversity as per Chart 1 below, the institution would increase the % of female students getting admitted by providing attractive scholarships. We are determined to keep a target to increase the female enrollment ratio by 25% within 5 years and 50% within 10 years.

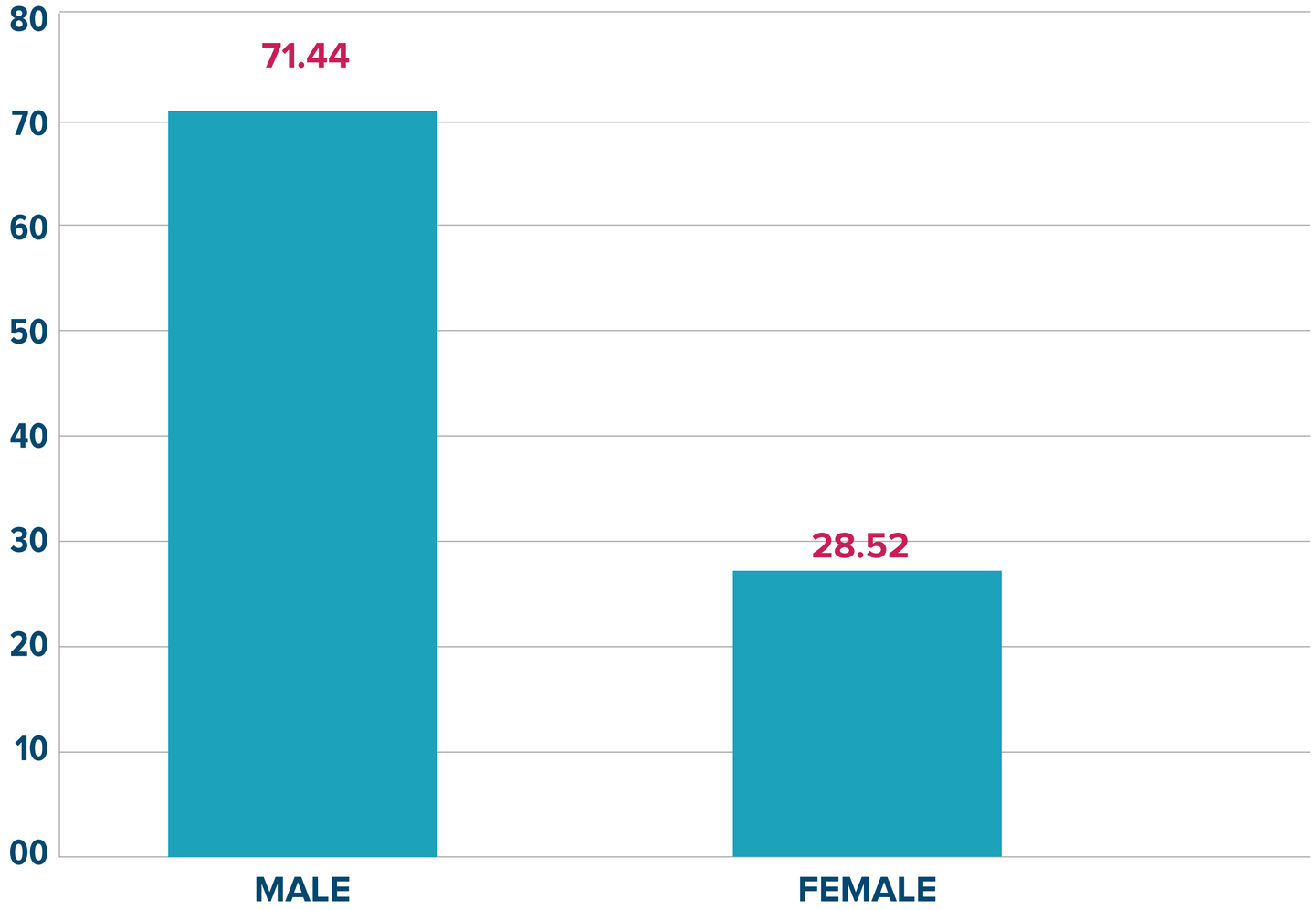


CHART 2.1: GENDER DIVERSITY

2.5 INITIATIVES FOR MULTI-DISCIPILINARY ACADEMIC EXCELLENCE

The institution will work to improve upon the changes recommended in National Educational Policy 2020 (NEP) by focusing on the academic aspects including the following categories:

- 2.5.1 Introduction of Interdisciplinary programs
- 2.5.2 Collaborative Programs with industries, EDTech and other elite institutions
- 2.5.3 Faculty Exchange Initiatives
- 2.5.4 Programs for Special Needs
- 2.5.5 Leveraging Experts' Intelligence
- 2.5.6 Introducing Innovative Approaches in Teaching, Learning & Assessment
- 2.5.7 Professional Associations
- 2.5.8 Restructuring Programs and Introduction of New Programs under NEP
- 2.5.9 Dual Degree & Joint Degree Programs
- 2.5.10 Implementation of ONE SKILL per STUDENT per YEAR
- 2.5.11 Academic Bank of Credit (ABC)
- 2.5.12 Quality hallmarks
- 2.5.13 Faculty Motivation

2.5.1 INTRODUCING INTERDISCIPLINARY PROGRAMMES

The university at present conducts more than 50 undergraduate and postgraduate Programmes. Keeping the current trends in mind the university also plans to add many interdisciplinary Programmes. The following chart shows the number of such Programmes getting introduced over and above the existing discipline specific Programmes.

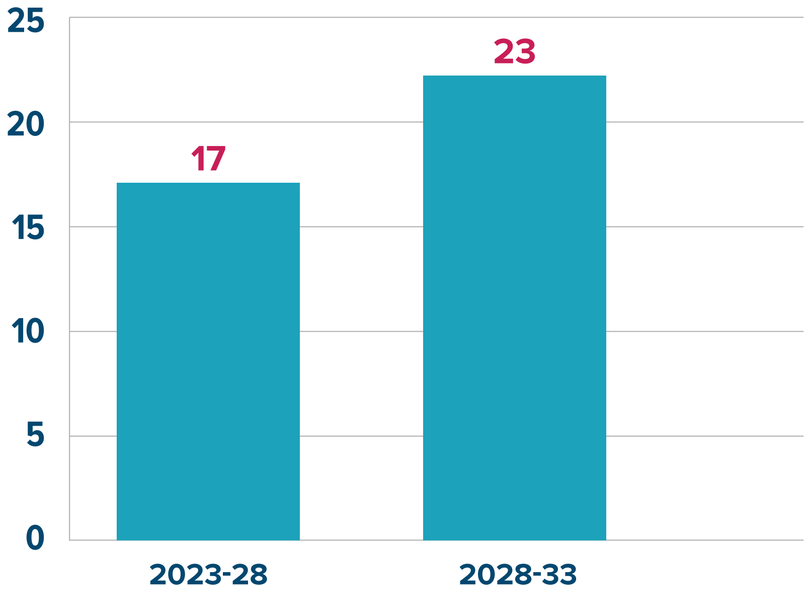


CHART 2.3: PROJECTIONS OF INTERDISCIPLINARY PROGRAMS

The above charts depict that there will be 28 new interdisciplinary Programmes introduced within a span of 5 years and 8 additional will be within a span of 10 years. The introduction of above Programmes will be in phase wise manner.

2.5.2 COLLABORATIVE PROGRAMS

The institution has planned to enroll into MOUs with various partners for offering collaborative Programmes. MOUs will be administered with industries, other elite institutions, Edtech companies, and with local NGOs for offering Programmes for regional needs. FoPT, as of now is having 10 such collaborations with leading hospitals and societies, where in their students are serving to gain practical experience. The following graph indicates the progress in this initiative over a period of 5 years and 10 years respectively.

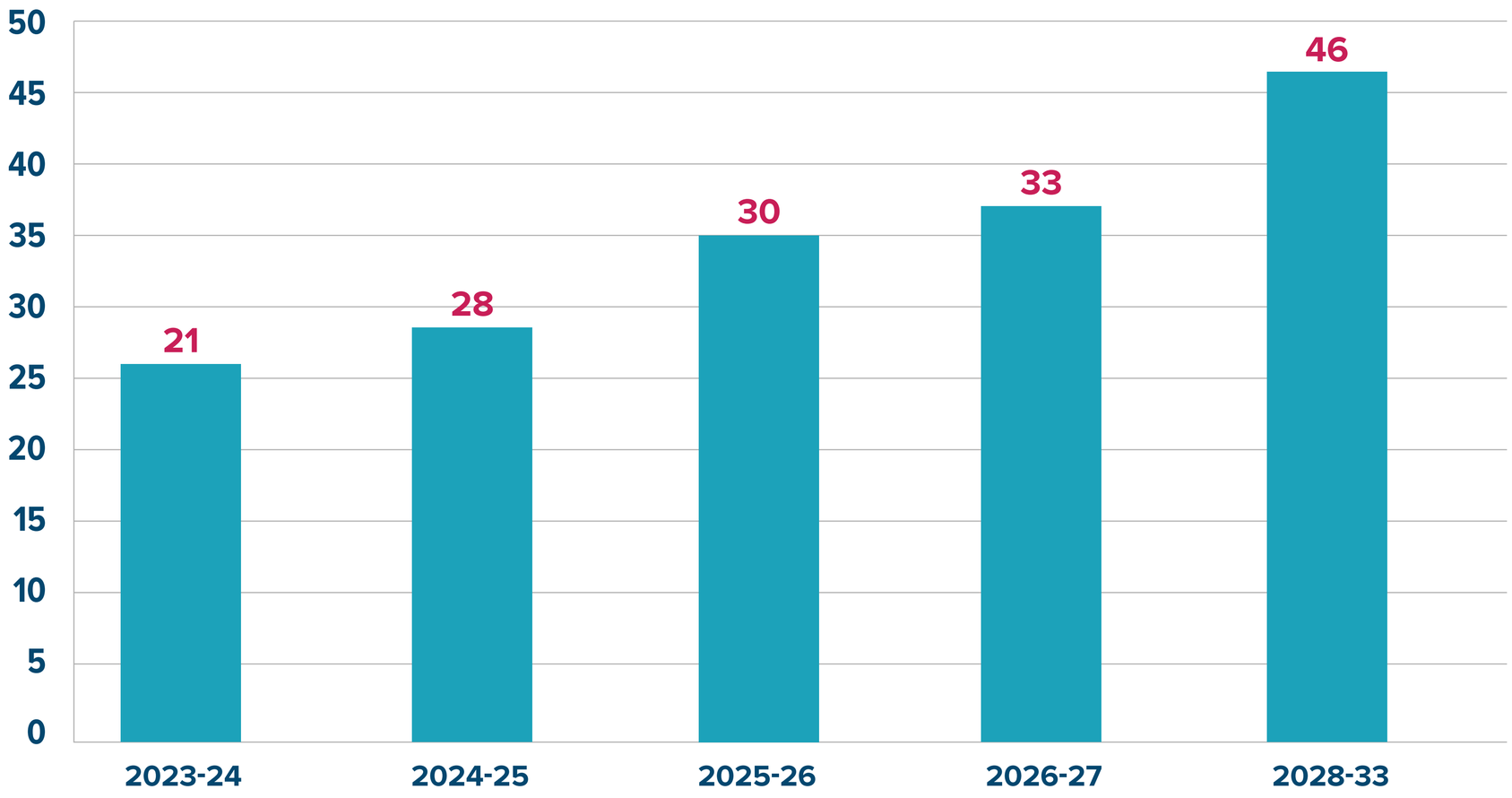


CHART 2.4: PROJECTIONS OF INDUSTRY COLLABORATED PROGRAMS

The institution has already got an advantage of having a higher number of MoUs with Foreign Universities that enables the enhancement of Student and Faculty Exchanges. Considering the availability of adequate funds for Centre of Excellence initiatives with Government sectors, the institute has planned to rapidly increase the industry- collaborated Programmes for the maximum utilization of funds. Within a span of 5 years 17 such Programmes will be introduced and 13 additional Programmes will be introduced.

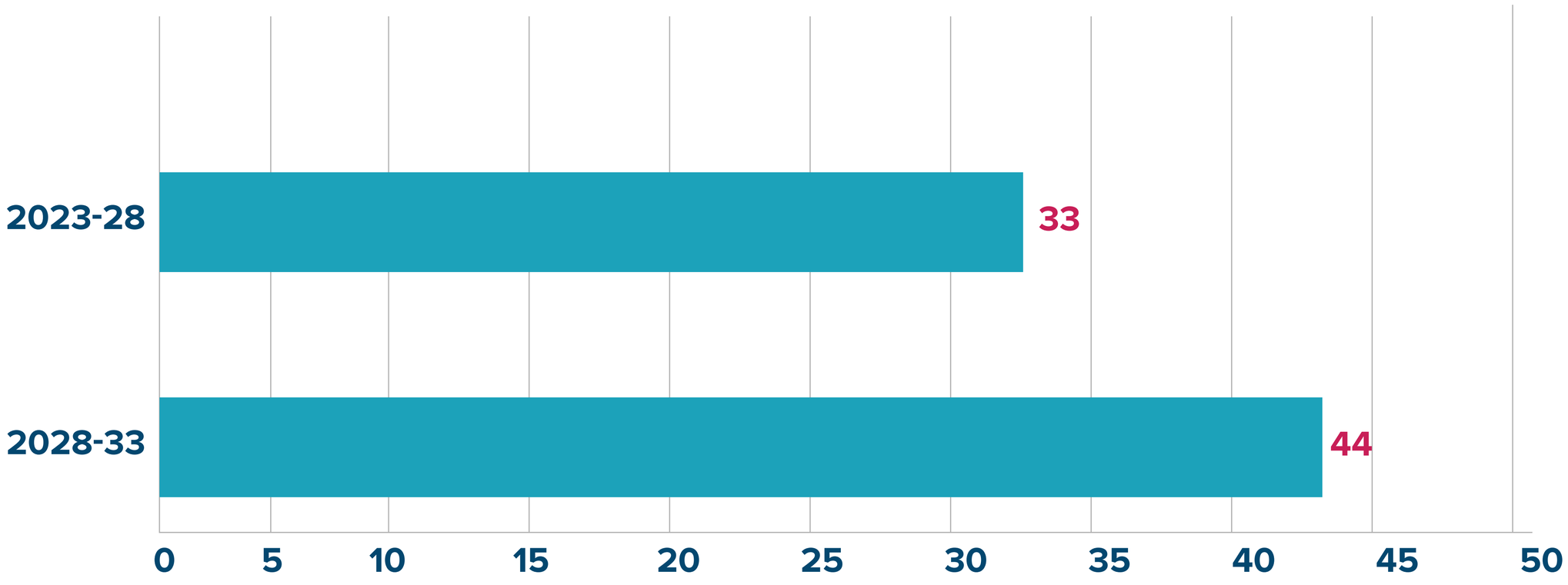


CHART 2.5: PROJECTIONS OF PROGRAMS WITH ELITE INSTITUTIONS

In order to enhance the student and faculty exchange, many collaborated Programmes will be thought of with elite educational institutions in India and abroad. 12 Programmes of this sort will be done within 5 years and another 8 will be within 10 years.

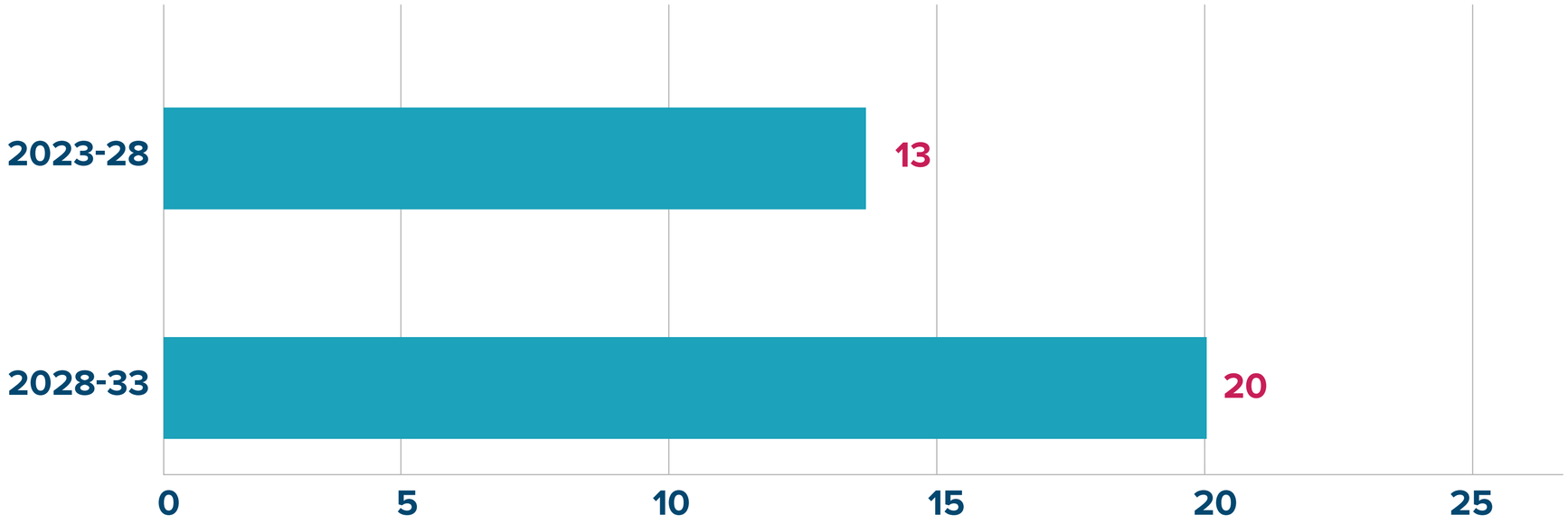


CHART 2.6 : PROJECTIONS OF PROGRAMS WITH EDTECH INTERVENTIONS

2.5.3 FACULTY EXCHANGE INITIATIVES

The institution has already planned to increase the number of faculty exchange programs so that the target of 50 faculty members will be reached within a span of 5 years and it is further expected to get scaled up to 80 within 10 years.

2.5.3 FACULTY EXCHANGE INITIATIVES

The institution has already planned to increase the number of faculty exchange programs so that the target of 50 faculty members will be reached within a span of 5 years and it is further expected to get scaled up to 80 within 10 years.

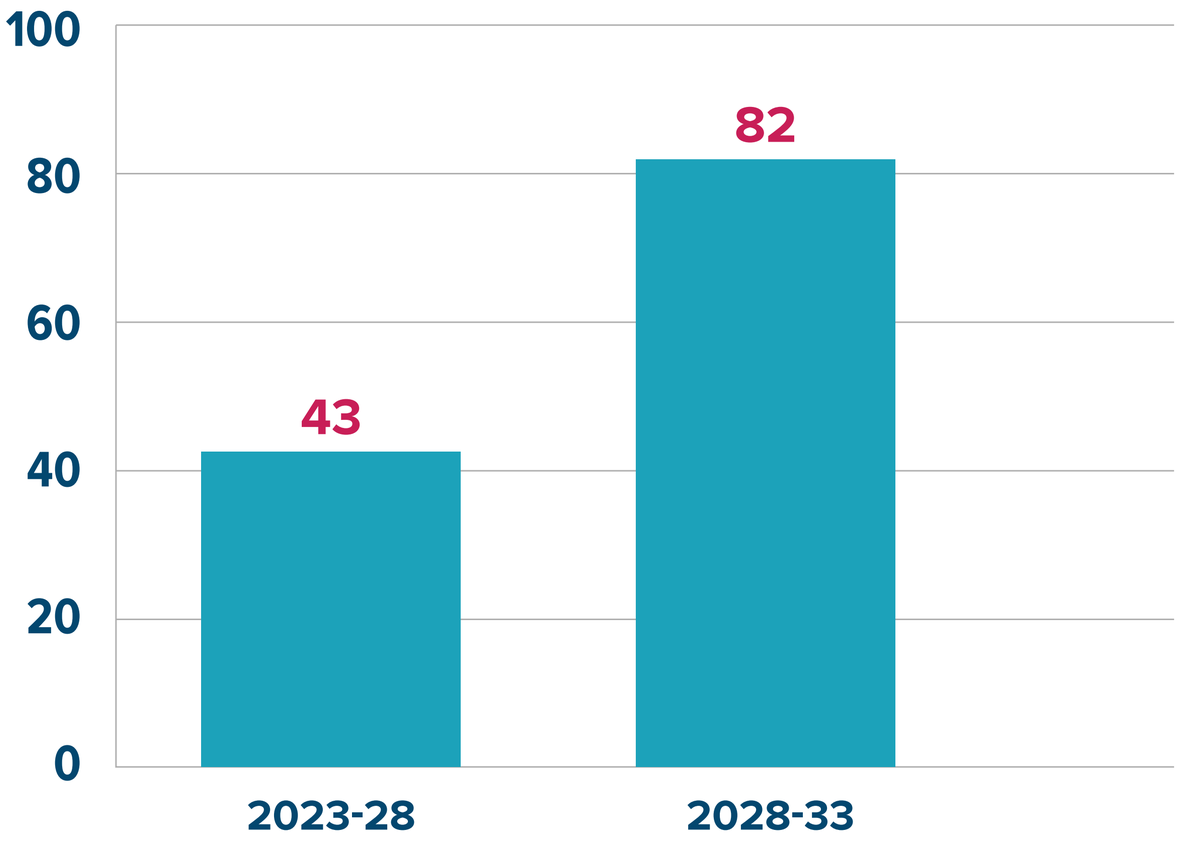


CHART 2.7: FACULTY MEMBERS INVOLVED IN EXCHANGE PROGRAMS

Faculty members will be encouraged to take up intra-institute as well as inter-institute teaching and research assignments so that our services can be made widely available. Following graphs reveal the expected increases over such assignments over a period of 5 years and 10 years respectively.

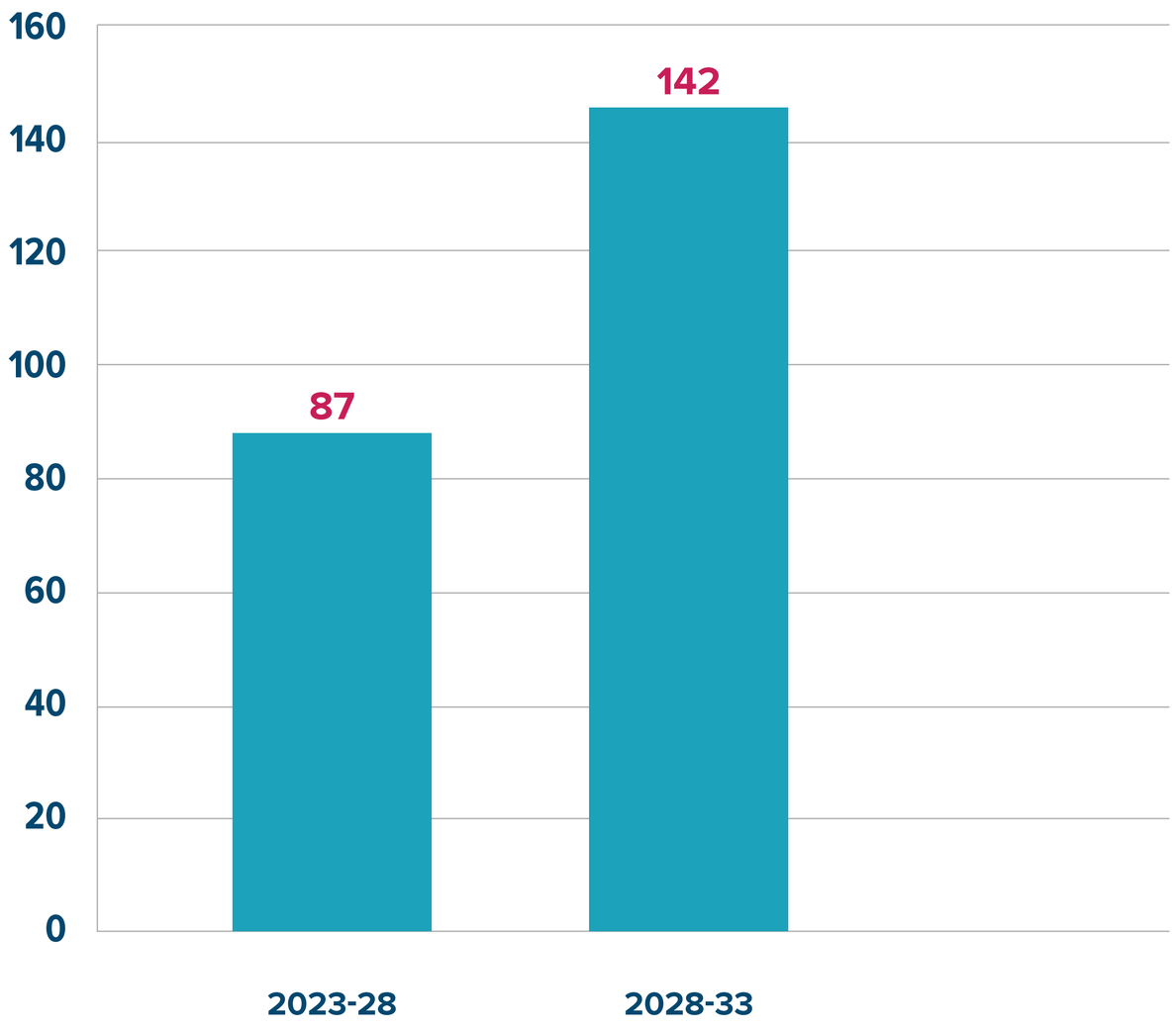


CHART 2.8(A): INTRA-INSTITUTE TEACHING / RESEARCH ASSIGNMENTS

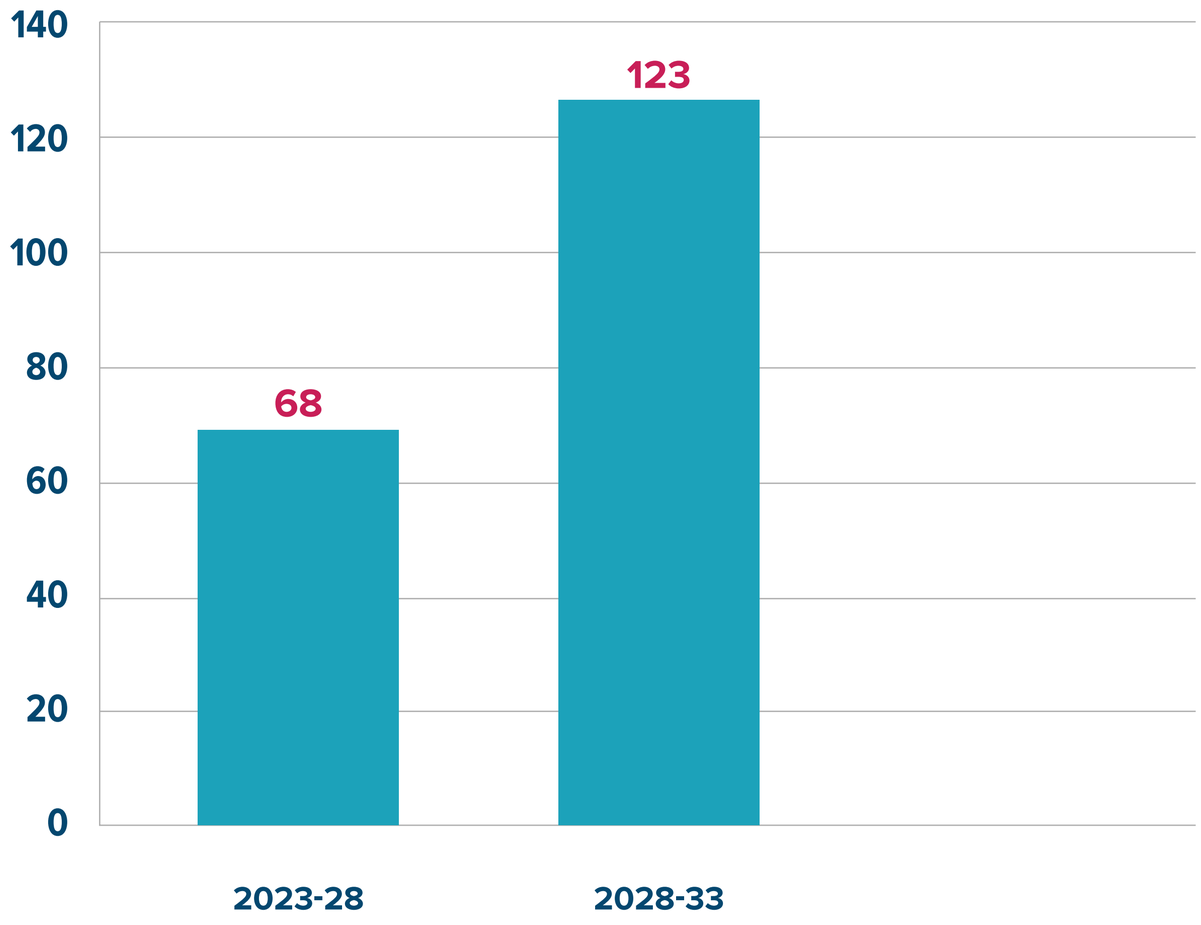


CHART 2.8(B): INTER-INSTITUTE TEACHING / RESEARCH ASSIGNMENTS

Adding one more dimension to the situation, the institution has planned to increase the number of faculty members with teaching experience abroad. This would substantially contribute for the rise of inter-institute teaching and research assignments.

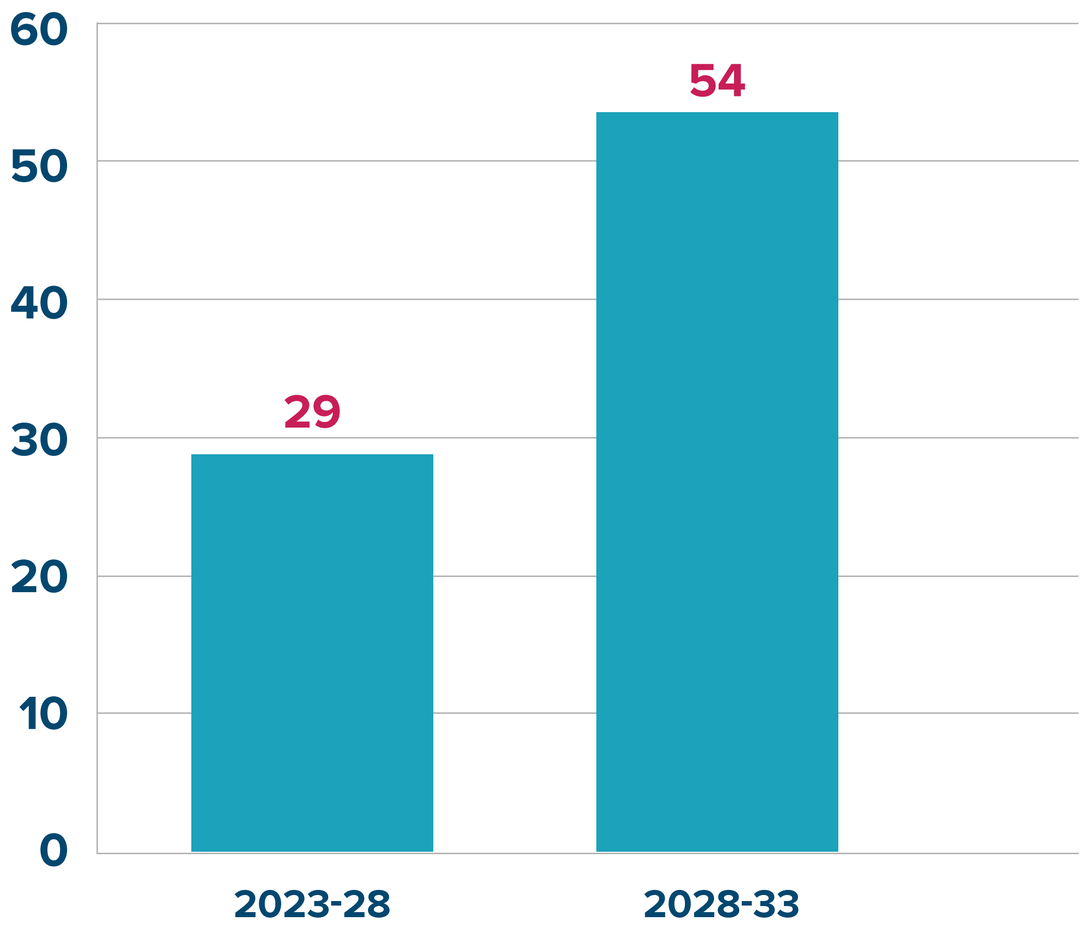


CHART 2.8(C): FACULTY WITH ABROAD TEACHING EXPERIENCE

2.5.4 PROGRAMS FOR SPECIAL NEEDS

The vision of the institution, clearly states that it exists for the empowerment of people, organization and societies. Keeping this in mind it is planned to open many opportunities for the public in imparting quality education as well as skill based education to improve the employability and per capita income. These Programmes are further classified into Region-specific, Programme for working professionals, unemployed / failed candidates and economically / physically challenged.

2.5.4.1 REGION-SPECIFIC PROGRAMS

Since Rajkot is surrounded by industries of Mechanical, Ceramic, Food etc., the institution is keen to scale up Programmes of regional needs so that the regional needs are taken care of. For instance, the microbiology department of FoS has planned to offer few Short-term regional specific Programmes such as Food Chemistry and Agriculture & Dairy Technology, Mechanical Engineering department of FoT has planned degree with specialization in Foundry Technology while FMS has planned for Certification course in EXIM and Tourism & Hospitality Management would cater to the manpower requirements of the region.

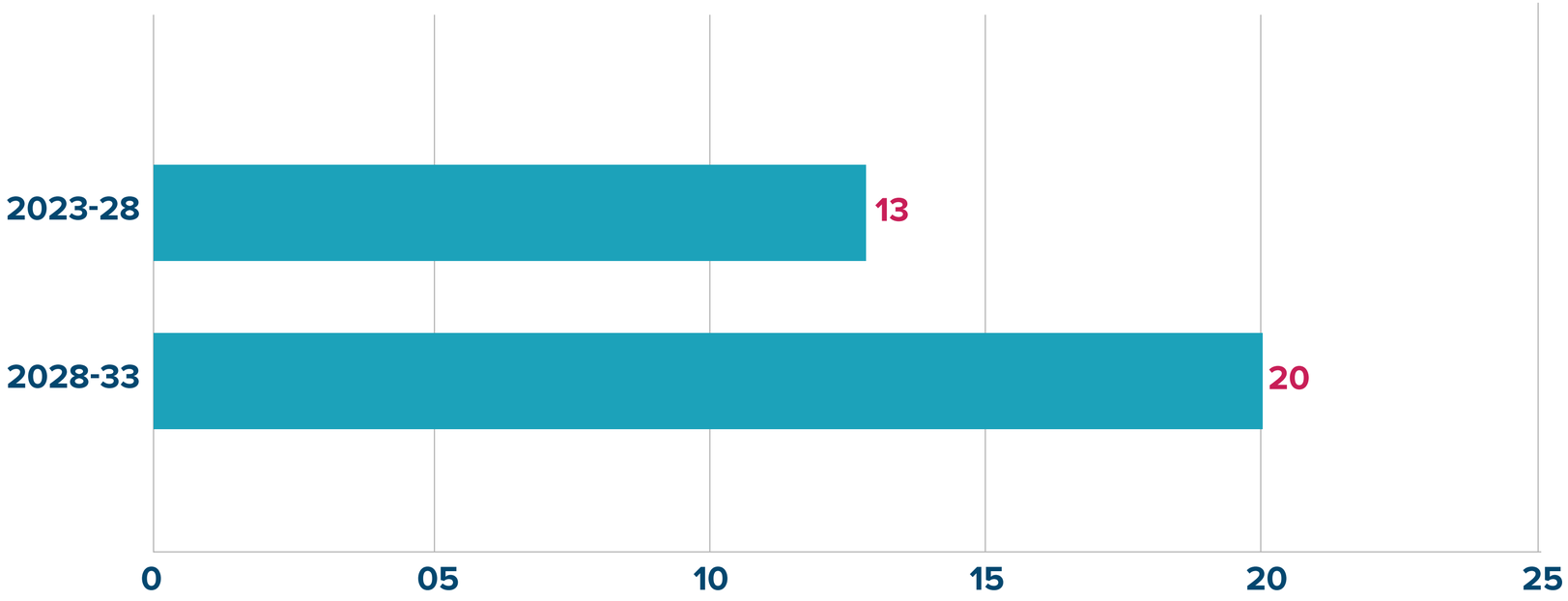


CHART 2.9(A) : PROGRAMS FOR REGIONAL NEEDS

2.5.4.2 OTHER SPECIALIZED PROGRAMS

Programmes of this nature will be offered either in part-time or on-line mode, in order to suit the convenience of people. These Programmes would definitely address the currently faced challenges in getting students with good quality.

SPECIALIZED PROGRAMMES

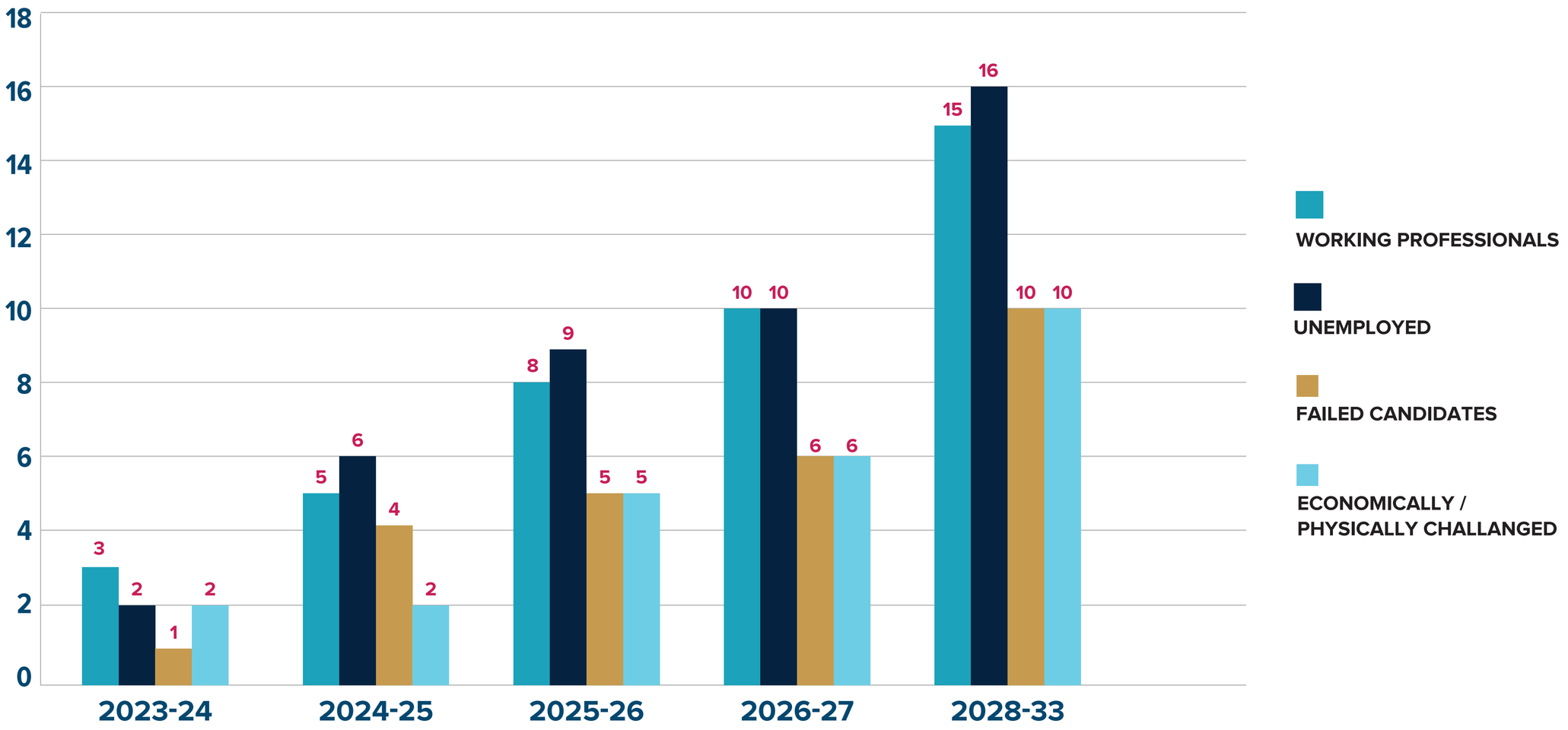


CHART 2.9(B): SPECIALIZED PROGRAMS

2.5.5 LEVERAGING EXPERTS' INTELLIGENCE

In order to bridge the gap between industry and academia, it has been decided to invite senior delegates from industries to join the institution as Professor of Practice so that their expertise can be utilized to enrich the students with best industry practices. This would further bring the industry environment, skill education, and expertise which cannot be fully covered by the curriculum. Similarly experienced and retired professors from elite institutions, who have a track record of rich research outcomes which can promote the research culture amongst students and faculty members, will be invited to the institutions to serve as emeritus professors. Appointing such eminent professors would help improve the faculty talents.

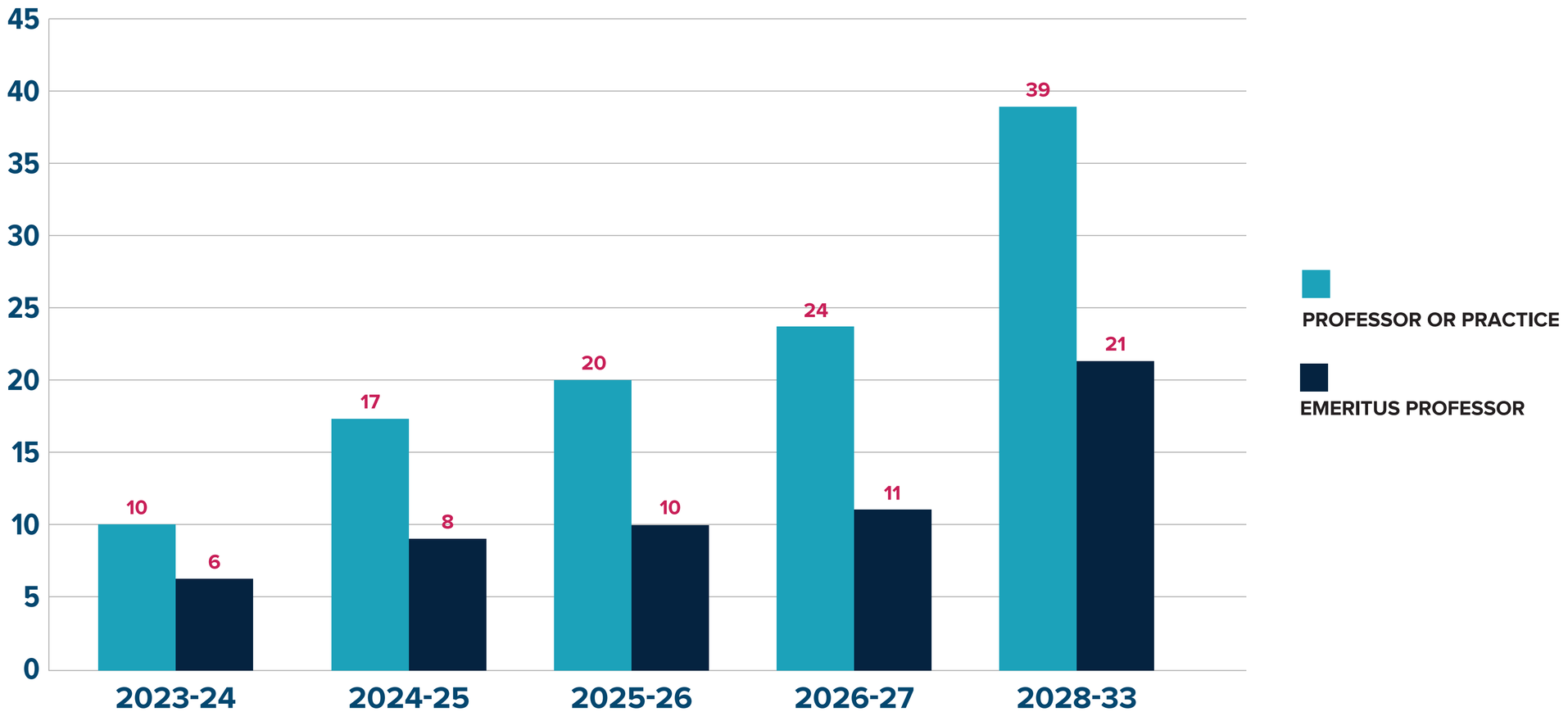


CHART 2.10: LEVERAGING EXPERT INTELLIGENCE

2.5.6 INNOVATIVE APPROACHES

Keeping the view of the flexibilities introduced under NEP, many innovative approaches are planned in terms of teaching-learning and assessment methods. Such approaches do not mandate the physical presence of the student throughout the day at the institutions. Due to this students will have the flexibility to attend the classes from anywhere and also will be in a position to carry out projects, field work, and other experiential learning without sacrificing his/her ongoing academic sessions. For this purpose many of the existing courses will introduce active learning, phase by phase.

2.5.6.1 ACTIVE LEARNING

The institution is planned to convert 59 of its existing courses into Active Learning mode within a span of 5 years and 139 by the end of 10 years

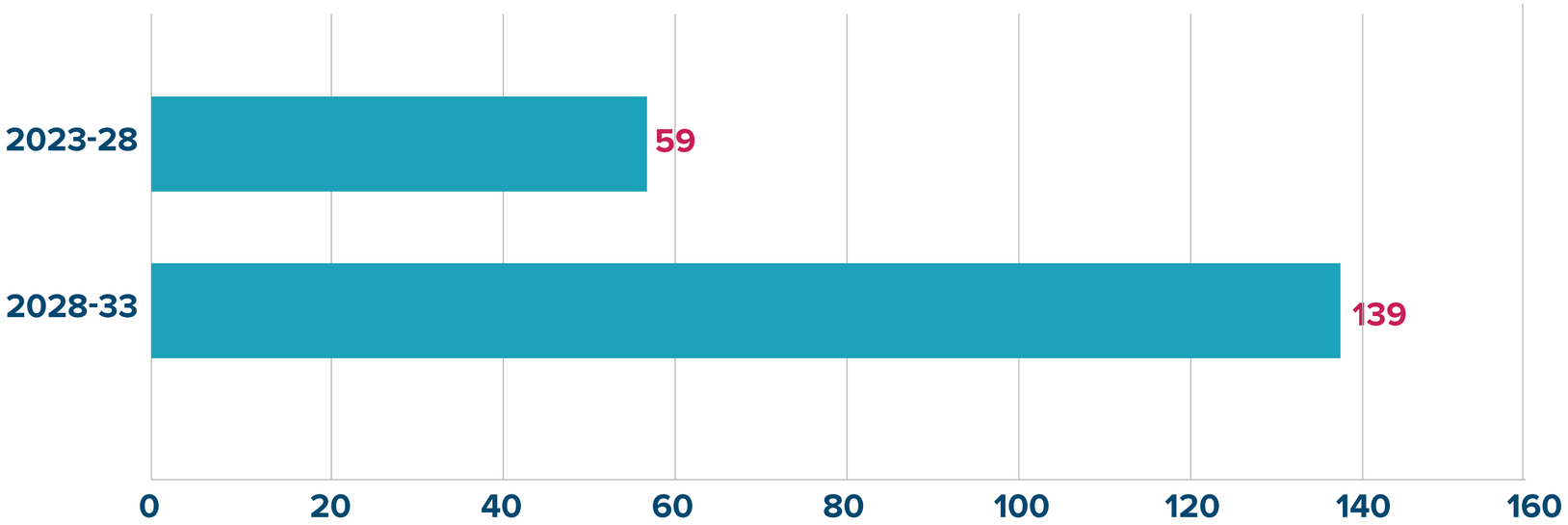


CHART 2.11(A): IMPLEMENTATIONS OF ACTIVE LEARNING

2.5.6.2 INNOVATIVE TEACHING & ASSESSMENTS

While many departments have already introduced innovative approaches such as Project Based Learning and Flip Classrooms as the derivatives of Learning-outcome Based Education (LBE), we would like to introduce more of this nature systematically during the years to come. Since traditional assessment methods are not capable of assessing the students with all dimensions, as per revised BLOOM's taxonomy, some refinement or innovation is the need of the hour. To assess students with all dimensions, various methods like open book test, take home exams, field work, etc., will be introduced, whose projections are listed in the following tables:

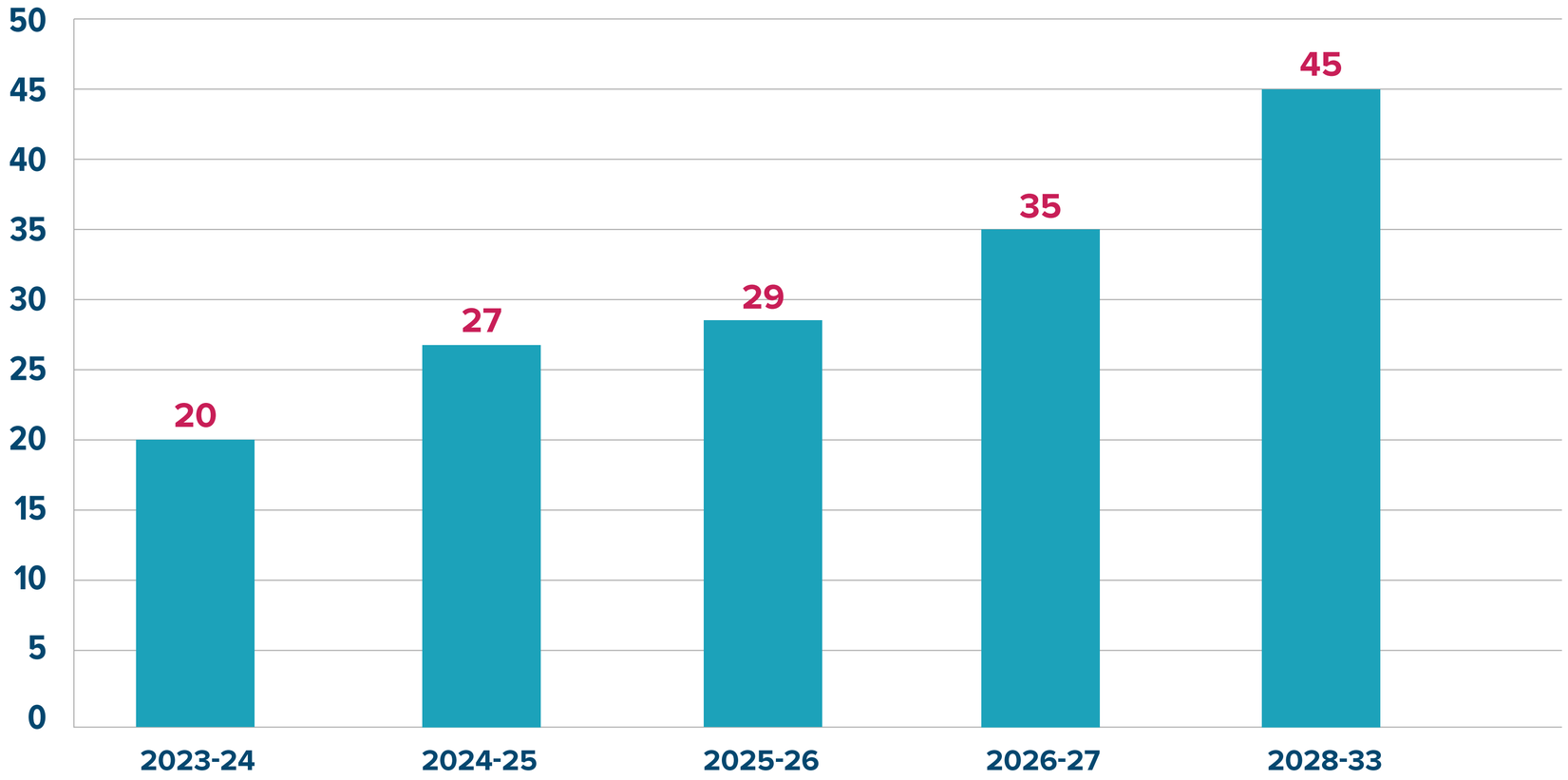


CHART 2.11(B): INNOVATIVE ASSESSMENTS

2.5.7 PROFESSIONAL ASSOCIATIONS

At present the FoT is active in professional associations of IEEE and IETE and FCA is active on CSI. Other departments have come forward to introduce different professional bodies as suitable to their disciplines. More of these sorts will be introduced by the departments such as ISCB by Microbiology, RMA and NPC by Management and InDA by Chemical Engineering. It is believed that such professional associations would improve the connectivity for the students and faculty members.

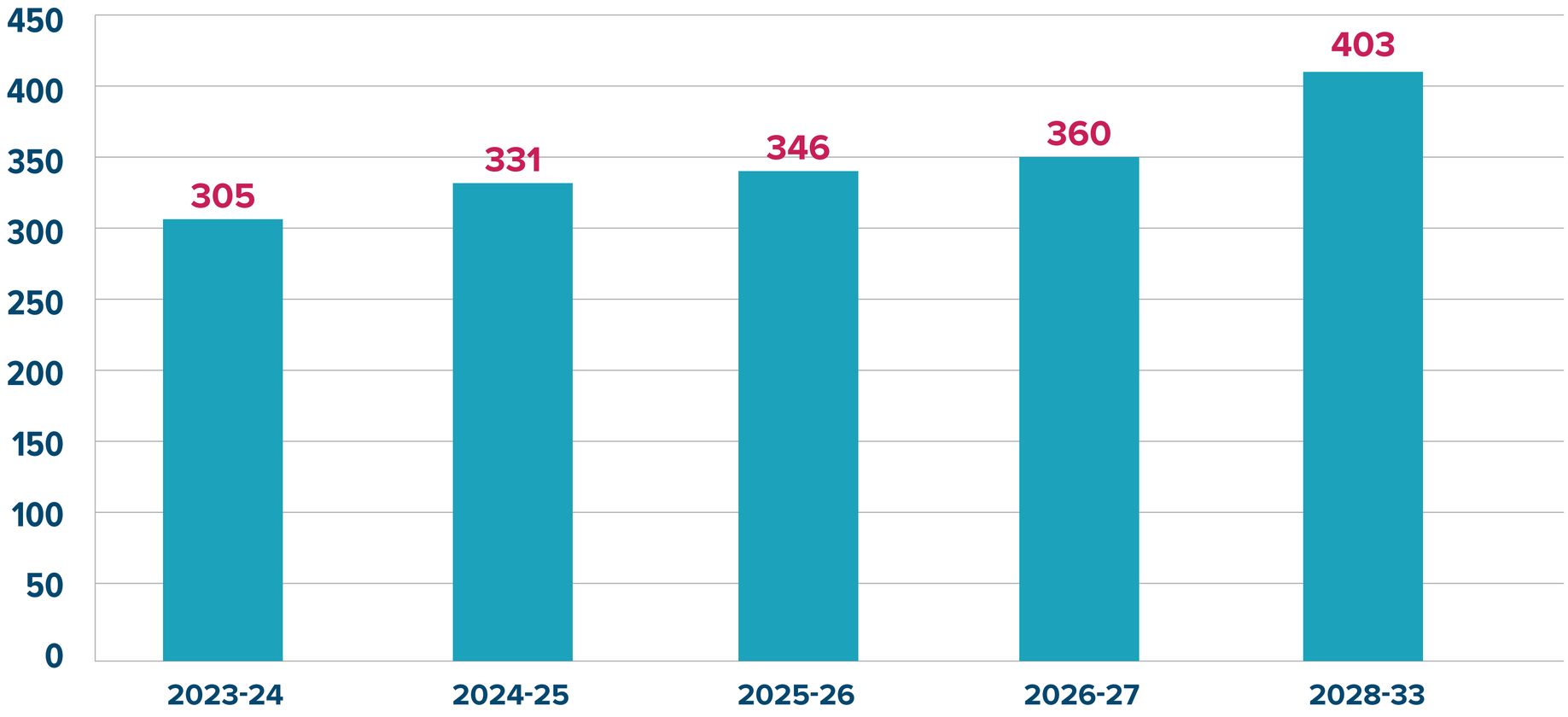


CHART 2.12: PROFESSIONAL ASSOCIATIONS

2.5.8 RESTRUCTURING PROGRAMS AND INTRODUCTION OF NEW PROGRAMS UNDER NEP

The institution is keen to convert all the existing undergraduate Programmes into NEP compliant ones. An NEP implementation committee has already been constituted at the institution level to recommend necessary changes in the curriculum frameworks.

During AY 2022-23, two Programmes, namely Bachelor of Computer Applications (BCA) offered by FCA and Bachelor Arts offered by FoL have been re-structured based on NEP recommendations. In AY 2023-24, 4 more Programmes namely, BBA, BCom, BSc (Economics) and other BSc Programmes will be restructured. As a consequence of introducing the above UG Programmes, it is planned to introduce new one year PG Programmes MA, MCA, MBA, MCom and MSc Programmes during AY 2026-27 and AY 2027-28 as per the following table

NEP Compliant Programmes (Year wise)				
2023 - 24	2024 - 25	2025 - 26	2026-27	2027 - 28
-	-	-	One Year MA	-
-	-	-	One Year MCA	-
BBA	-	-	-	One Year MBA
BCom	-	-	-	One Year MCom
BSc Economics	-	-	-	One Year MSc Economics
BSc	-	-	-	One Year MSc

2.5.8.1 OPEN ELECTIVES

Open electives add flexibility to students to take up his/her desired courses of other disciplines out of his/her passion or interest. At present a single basket consisting of approximately 30 open electives have been suggested by all the departments for the benefit of students. For the NEP based Programmes, these open electives will be increased to form 4 convenient baskets respectively

i. Natural & Physical Sciences

ii. Math, Statistics and Computer Applications

iii. Commerce and Management

iv. Humanities & Social Sciences

The following table provides the number of open electives that will be contributed by the departments.

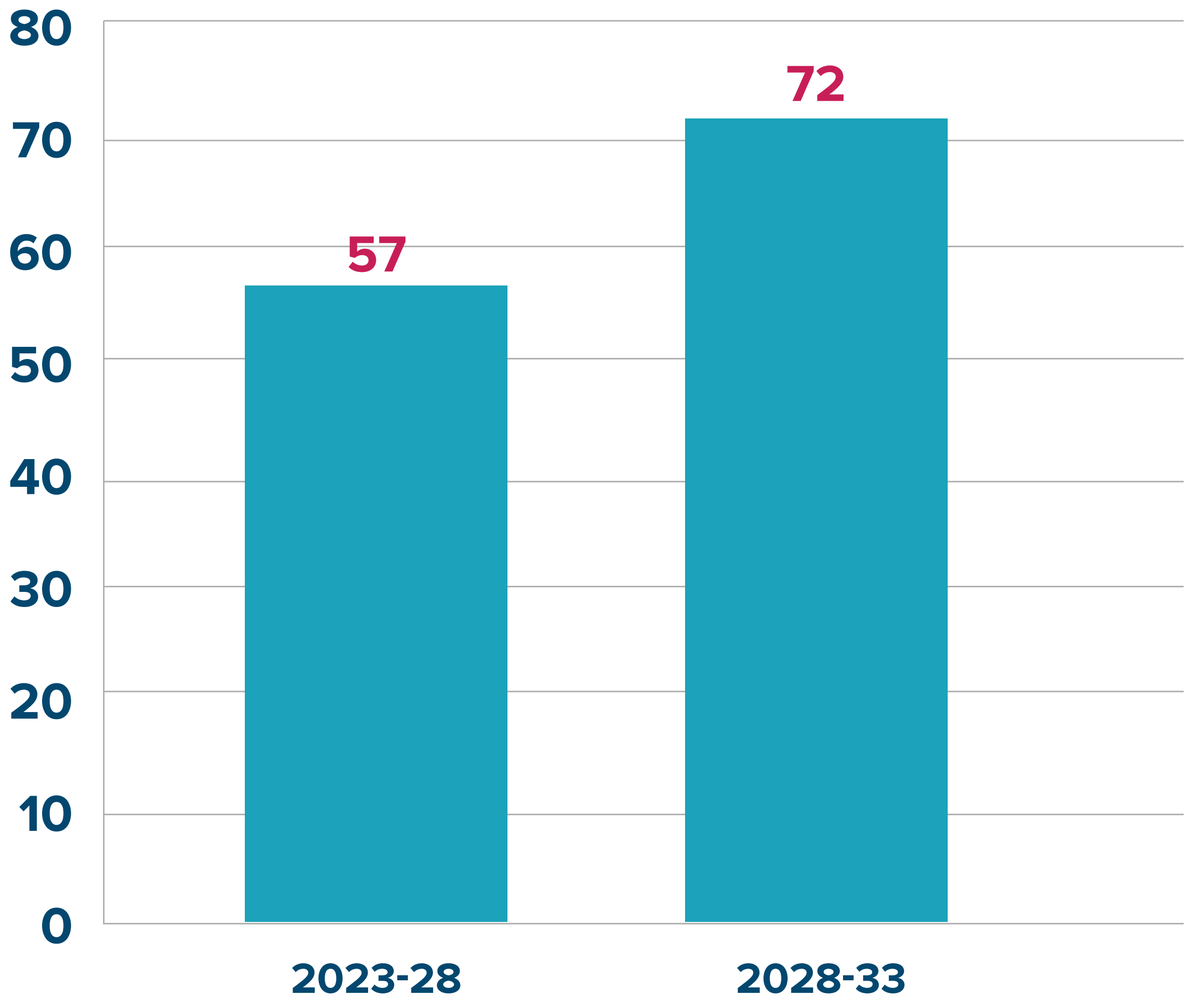


CHART 2.13(A): OPEN ELECTIVE TO BE INTRODUCED

2.5.9 DUAL DEGREE & JOINT DEGREE PROGRAMMES

The institution has presently enrolled into MoUs with more than 50 foreign universities. This gives the advantage to start many dual degree/joint degree Programmes.

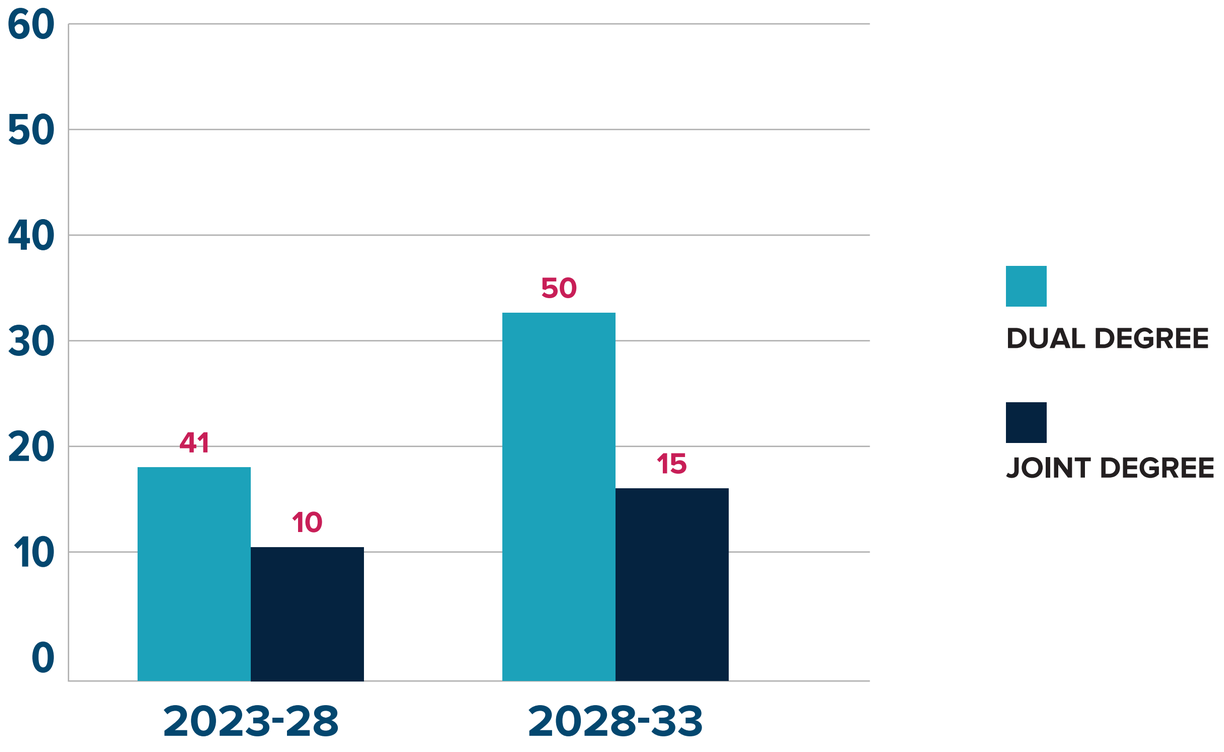


CHART 2.13(B): DUAL DEGREE PROGRAMS & JOINT DEGREE PROGRAMS

2.5.10 IMPLEMENTATION OF ONE SKILL PER STUDENT PER YEAR

Considering the abundant opportunities available for imparting advanced skill based education for societal needs, the institution is planning to introduce ONE SKILL / STUDENT / YEAR by which every department will contribute a set of skill courses that will be added in a repository for the students to pick. These skill courses will be delivered as a 30 hour module comprising Theory and Practicals. Most of these courses will be aligned either with the National Skill Qualification Framework (NSQF) or will be endorsed and delivered by reputed organizations.

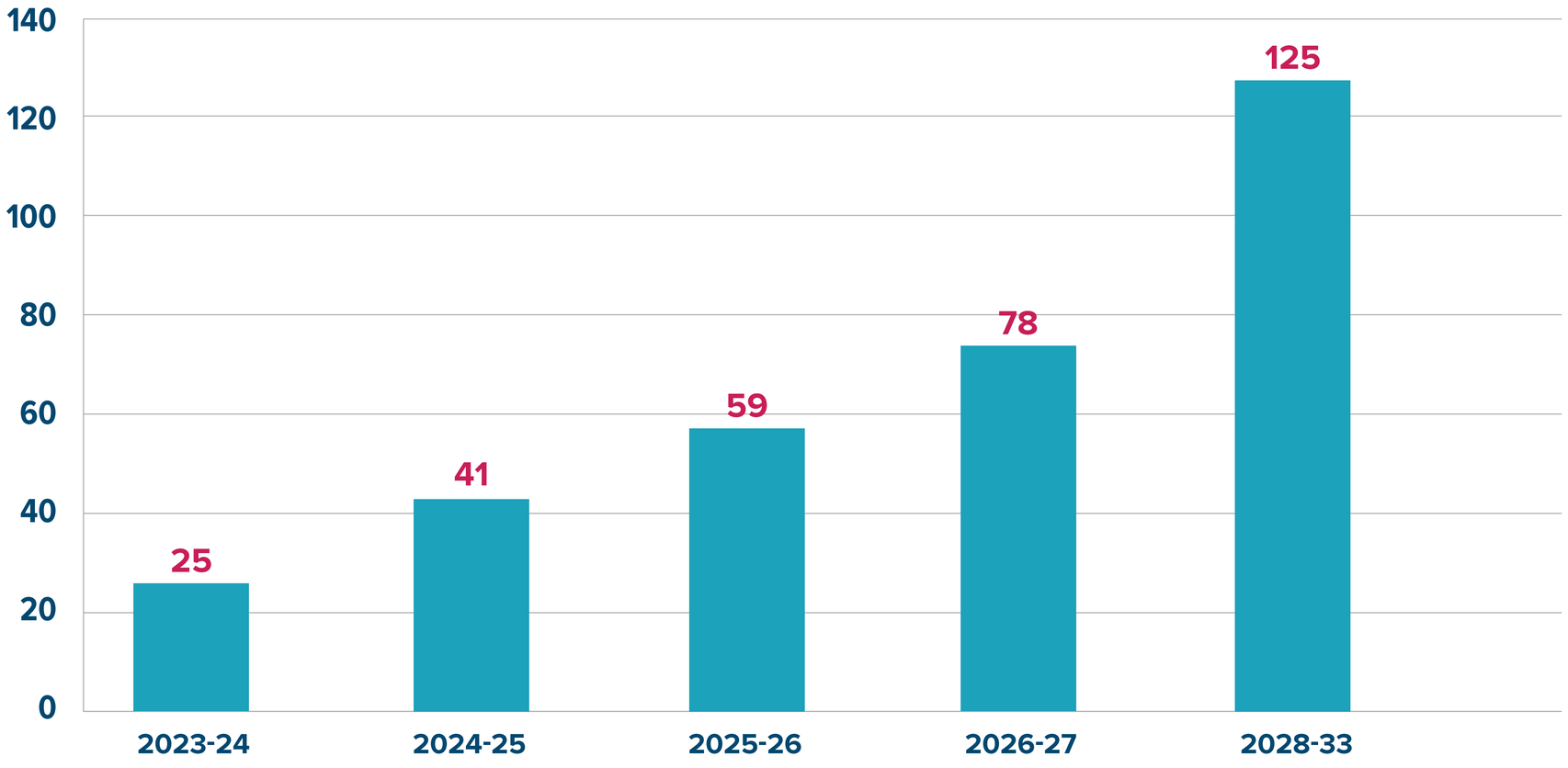


CHART 2.13(C) : SKILL COURSES

2.5.11 ACADEMIC BANK OF CREDIT (ABC)

The institution has already aligned with the UGC for the implementation of ABC. During the I Phase, the student registrations using the DigiLocker facility have already been completed. As and when details of the next phases become available, we will show the same level of enthusiasm in implementation.

2.5.12 QUALITY HALLMARKS

Any aspiring institution has to regularly benchmark itself with the best practices so that quality improvements happen regularly. The institution has taken various measures such as academic audits, peer reviews for bringing quality hallmarks etc.

2.5.12.1 ACCREDITATIONS

During 2017-22, the institution obtained A+ by NAAC, before obtaining university status. The NAAC re-accreditation process has already been initiated and will be carried out continuously once in the span of 5 years. In a similar way, Faculties of FoT, FMS and FCA will also undergo the department specific NBA, once in a span of 3 years. The projected years of the same, as well as other prominent academic bodies like NIRF, QS: iGAUGE, ISO:9001:2015 and ISO:20001:2018 for accrediting our academic practices and ISO:56002:2019 for innovation are indicated in the following table. FMS is keen to go for AMBA ranking and AACSB accreditation for MBA Programmeme.

2.5.12.2 ACADEMIC AUDITS & PEER REVIEWS

Best academic practices are always a backbone of any educational institute. To assess whether the best academic practices are followed or not, audits are conducted at regular intervals. Audits are either internal or external. Internal audits are carried out once in a semester preferably in the middle of the semester to evaluate the performance and progression and take remedial measures if needed. Internal audits are generally carried out by H.O.D and Senior faculty members of the concerned departments. External audits are carried out once in a year by a panel composed of an external expert of relevant domain, Dean-Academic Affairs, and two internal experts. The panel can take a holistic view of academic and its administrative practices and submit a report containing their valuable comments for improvement. The concerned department head is supposed to reflect on the comments through an action plan within a period of 3 months.

The external academic audit has recently been completed for FoCA, FMS, FoT (Computer Engineering, Civil, Mechanical departments). The audit for remaining departments will be completed within April 2023.

For a growing university like ours, it is always advisable to identify the best practices followed by elite universities for benchmarking. So various departments are advised to identify the model departments from such elite universities to follow their best practices. A panel comprising of chairman from academia, 1 member from relevant industry and 2 domain experts from academia will be formed to review the practices followed by respective departments.

2.5.13 FACULTY MOTIVATION

Motivation is required for all ages. Very recently, as a part of Republic Day celebrations, about 19 of the faculty members with more than 12.5 years of service with our institution were honoured by the Provost. The institution is also planning to introduce innovative schemes to motivate the faculty members based on their performances.

CHAPTER - 3

RESEARCH, CONSULTANCY AND START UP ECOSYSTEM

The Institute Development Plan - Research of Marwadi University for the next 10 years (2023-2033) is being framed to align the research goals with the academic plan and build the culture of research and innovation in the university. The changes have been initiated with reference to the following strategies;

- Compliance with the policies framed by the higher education department at the National and International levels
- Integration of research with real-time application of the respective domain.
- Motivation to conduct multidisciplinary and interdisciplinary research work
- Initiate collaboration with different scientific and industrial groups
- Incentives to the stakeholders in terms of promotion, appreciation, etc.
- Development of Centre of Excellence for research and development
- Emphasis on Sustainable Development Goals (SDG's) and other timely agendas suggested by UN
- Interlinking of societal aspects for the betterment of human beings.

PROPOSED OUTCOME

- To be a leader in fostering knowledge and innovation by addressing local problems with a global perspective.
- To create an ambiance where the generation of new ideas for transformative discoveries and innovation perpetuates with comprehensive, solution-oriented services and infrastructure to support research, dissemination, and translation of discoveries to maximize impact.

3.1 KEY PARAMETERS AND PROJECTIONS

YEAR	2018	2019	2020	2021	2022	2022-27	2028-33
PhD Scholars	49	91	122	152	358	600	765
Journal Publications	78	81	105	91	82	939	1702
Conference Proceedings	14	33	15	16	01	270	480
Book / Book Chapters	35	45	60	47	15	700	1182
Total Research Articles	123	164	183	153	107	1695	2829
Number of Funded Projects	03	10	08	09	28	132	213
Patents Filed / Awarded	11	05	05	8	29	300	650
Annual R&D Projects Funding Received (Rs. in Lakh)			888			1320	1600
Consultancy Revenue			359			580	950

The key parameters of the research output are measured in terms of Research articles to be published in reputed journals, conference proceedings indexed by various databases and books or book chapters. In addition to this, an attempt will be made to file Intellectual Property Rights for the work that results in indigenous products.

The university has made significant efforts to improve the quality of research outcomes to date within a short span of time. With the increasing strength of faculties and researchers, it is expected that the university will make significant progress in various key parameters. One of the measures to increase the research output will be to attract a talented pool of learners with an inclination toward research. It is proposed that 55% of the faculties in the university will have a Ph.D. degree by 2028 and this ratio will increase to 70% by the year 2033. This will also result in increased enrolment in Ph.D. and Post-graduate programs.

The university aims to offer greater autonomy to faculty members with exposure to the global research environment. The university has encouraged faculty members to work on projects in emerging areas in core fields and interdisciplinary fields. These projects align with the national requirements as well as the need of society. It is projected that work on such projects will result in quality publications in reputed journals widely accepted by the research community across the globe.

3.2 RESEARCH PUBLICATION

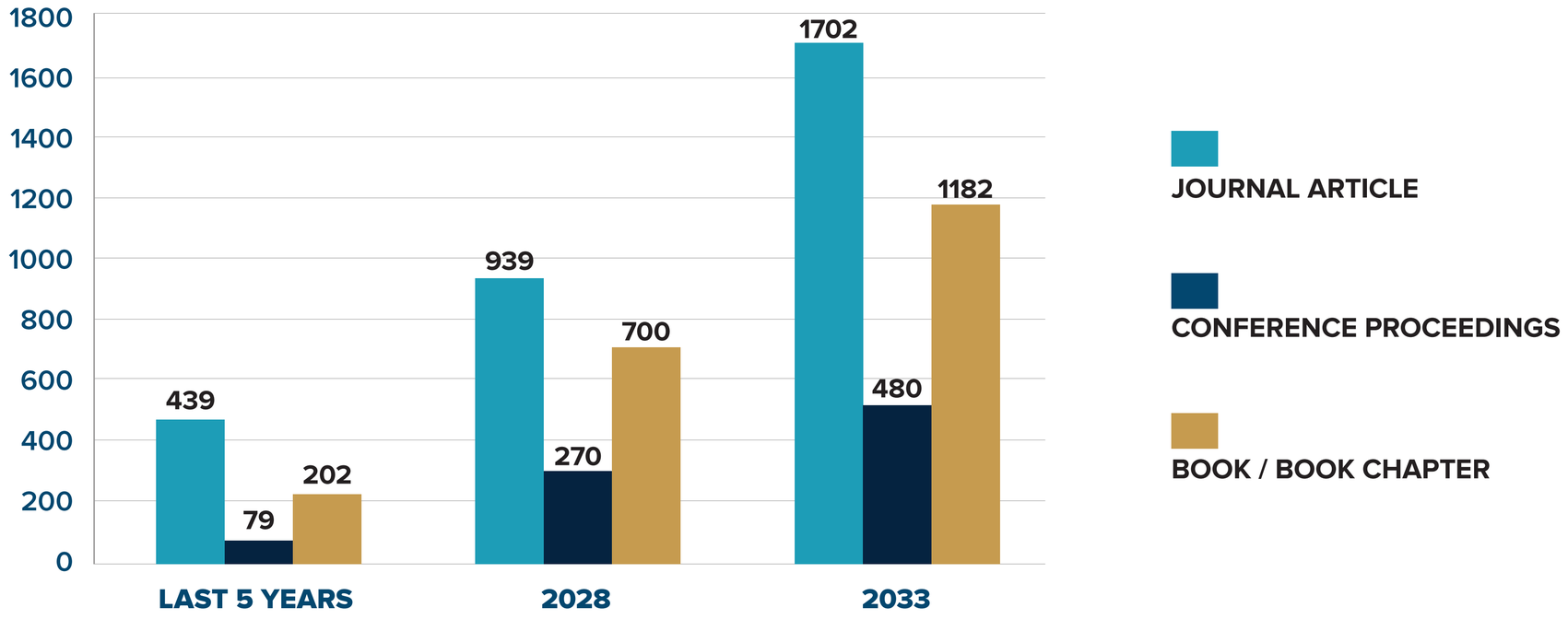


CHART 3.1 : RESEARCH PUBLICATIONS

- Expected variation of the actual outcomes will be within ∓ 5%
- Publications till June 2022

The university has supported research activities in all institutions and departments through policies such as the Research and Development Policy, IRP policy, plagiarism policy, research incentive policy, and the FIIP program. This has resulted in publications and research projects with national and international collaborations. The average number of publications per faculty per year for the last 5 years is 0.35 . The university has a projection of ~1.4 publications per faculty per year in the next 5 years.

PROJECTION OF JOURNAL PUBLICATION IN UNIVERSITY

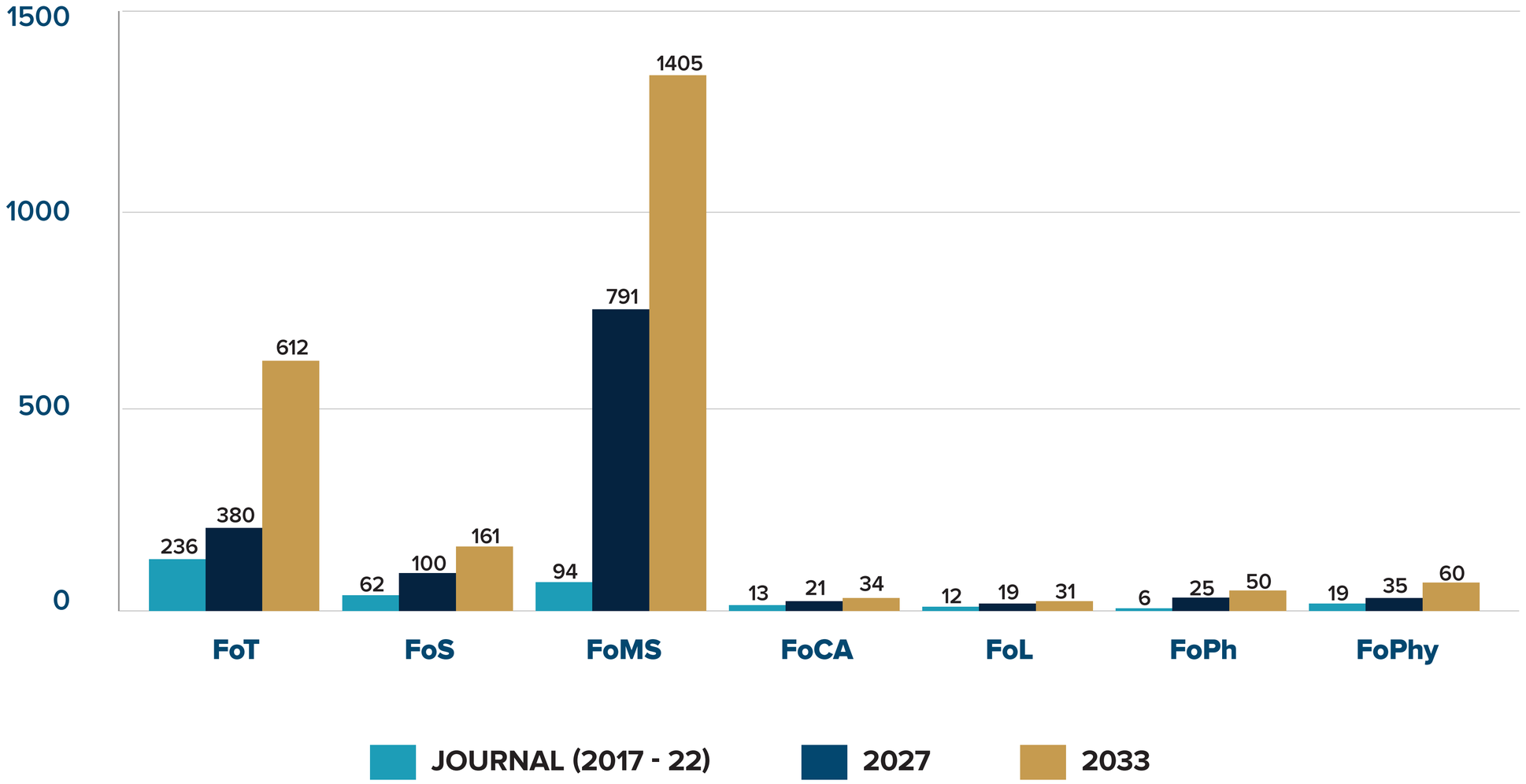


CHART 3.2 JOURNAL PUBLICATION

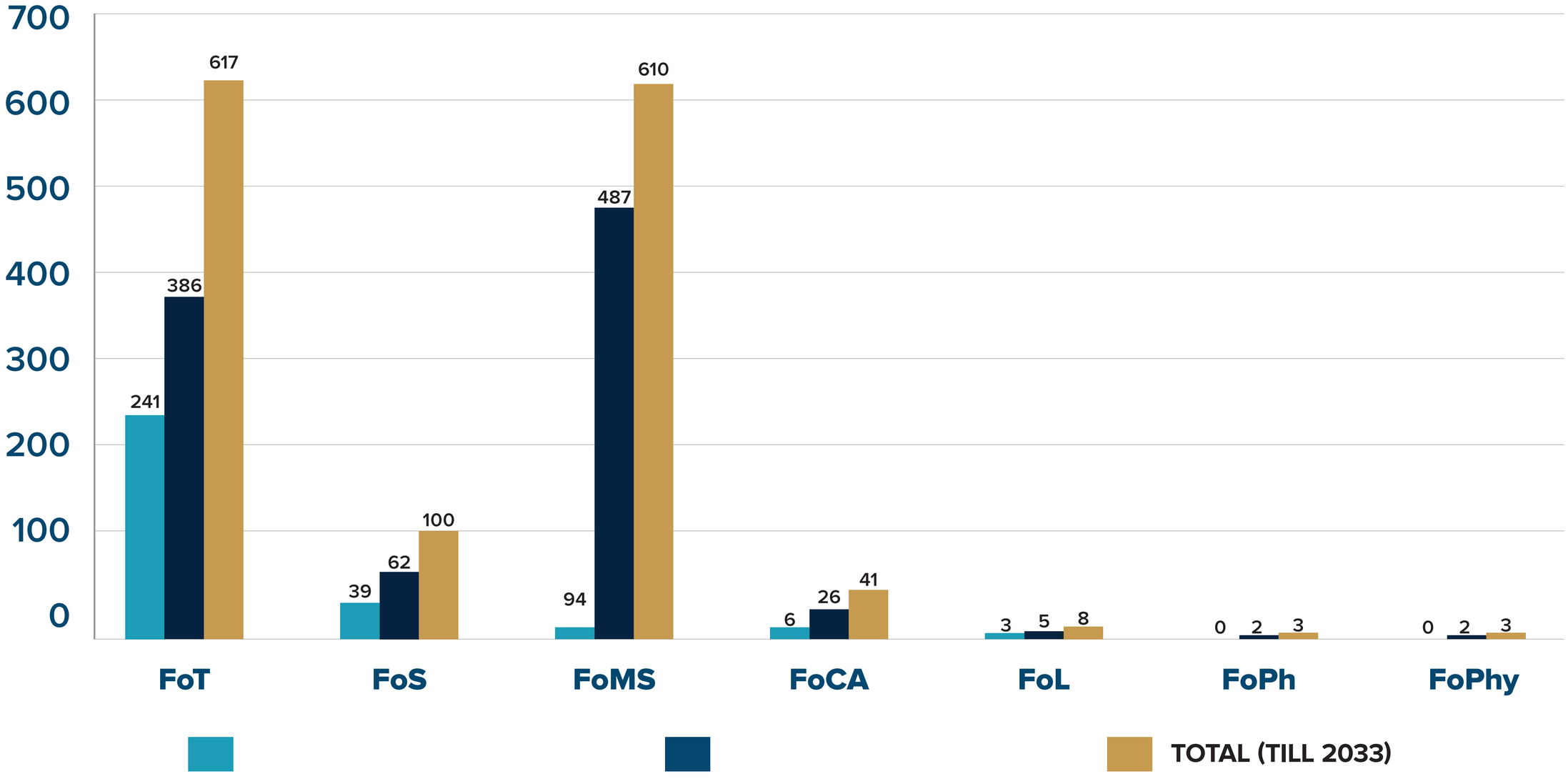


CHART 3.3 :PROJECTION OF CONFERENCE AND BOOK / BOOK CHAPTER PUBLICATION

3.3 PUBLICATION METRICS: BASED ON DATA OF SCOPUS

PRESENT DATA:

METRIC	PERCENTAGE OF PUBLICATIONS	SCHOLARLY OUTPUT	CITATIONS	CITATIONS PER PUBLICATION	FIELD-WEIGHTED CITATION IMPACT
International Collaboration	34.30 %	102	838	8.2	1.84
Only National Collaboration	38.00 %	113	815	7.2	1.37
Only Institutional Collaboration	25.60 %	076	462	6.1	1.61
Single Authorship (No Collaboration)	02.00 %	006	012	2.0	0.86
PROPOSED TARGET FOR 2028:					
International Collaboration	35.00 %	415	5395	13	3
Only National Collaboration	40.00 %	474	5688	12	2
Only Institutional Collaboration	20.00 %	237	2370	10	3
Single Authorship (No Collaboration)	05.00 %	60	180	03	1
PROPOSED TARGET FOR 2033:					
International Collaboration	35.00 %	693	14553	21	5
Only National Collaboration	40.00 %	792	15048	19	4
Only Institutional Collaboration	20.00 %	396	6336	16	4
Single Authorship (No Collaboration)	05.00 %	100	500	5	2

All data are calculated based on current faculty strength. With an increased faculty count, the number is likely to increase.

3.4 INTERNATIONALIZATION OF ACADEMICS AND RESEARCH

With increasing global footprints, the university is also planning to recruit faculties with global research experience. The international faculty shall bring rich international industry/research experience to the university culture. The faculty will also play an instrumental role in the improvement of the curriculum framework, international collaborations, publications, and funded projects from national and international bodies. The institute has already laid out plans for International Faculty or Emeritus Professors and working towards the appointment of Professors in the majority of the departments. It is expected that the percentage of international faculty will be 5% of the total faculty in 2028 and 10% of the total faculty by the year 2033.

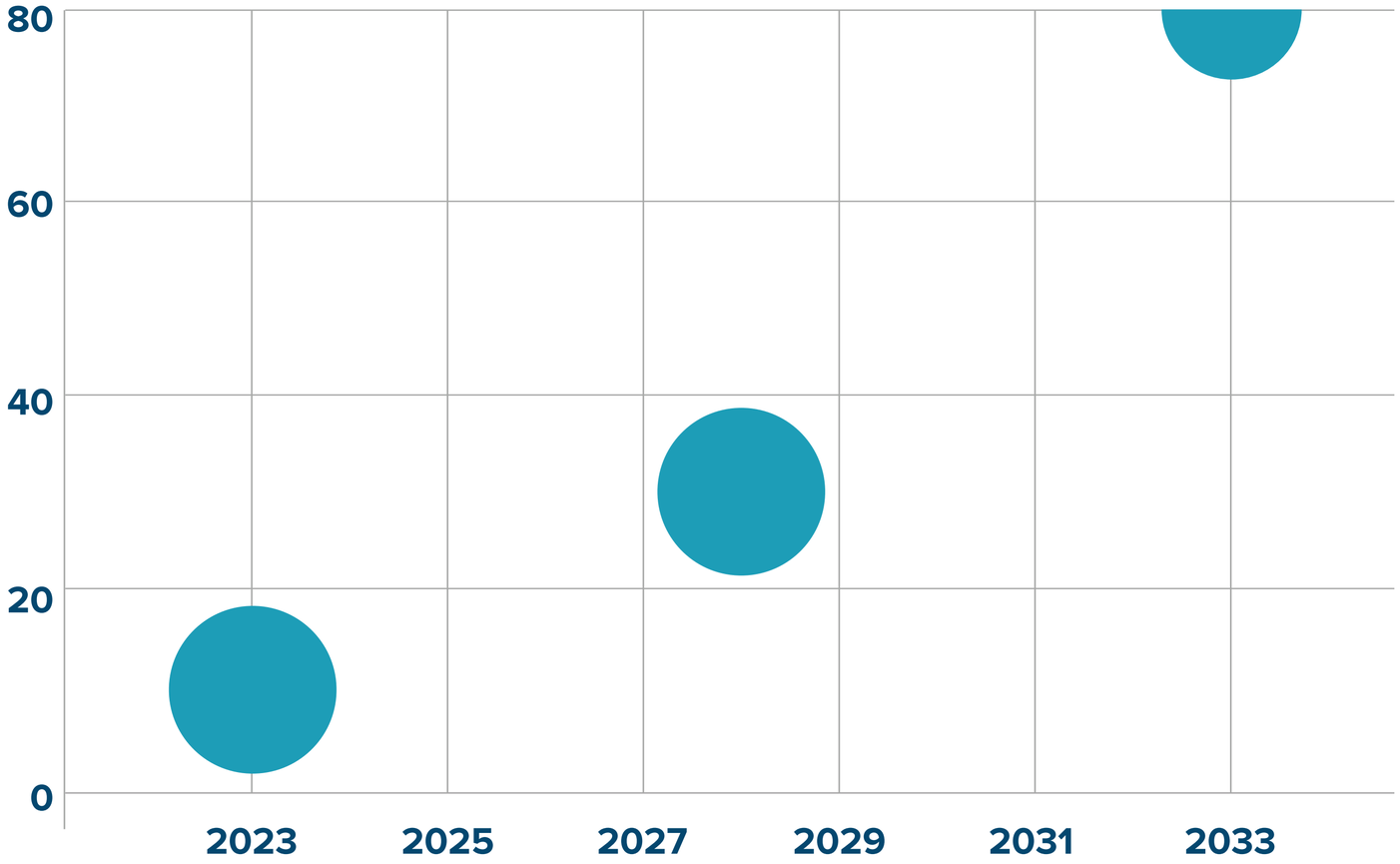


CHART 3.4 : NO. OF FACULTY WITH INTERNATIONAL EXPOSURE

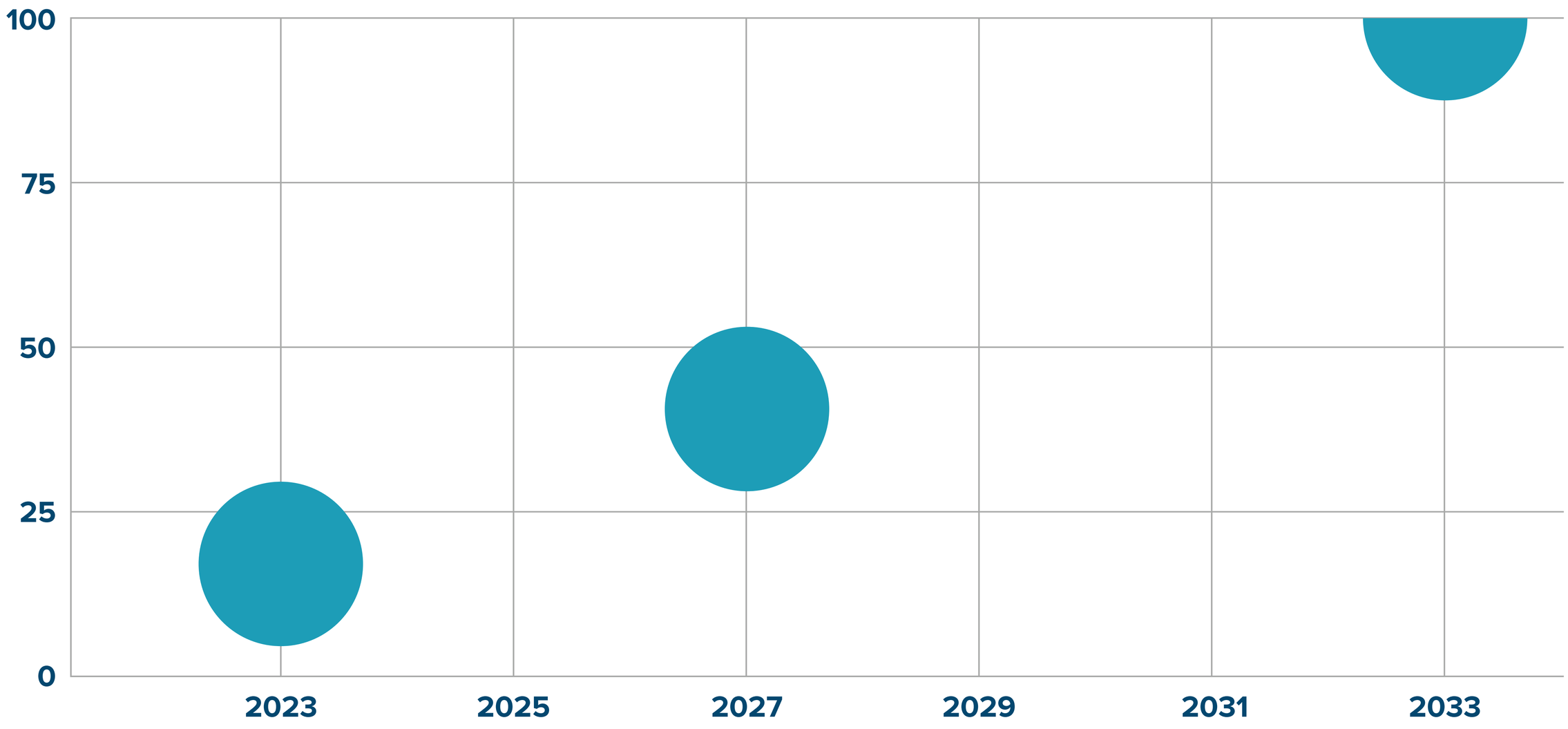
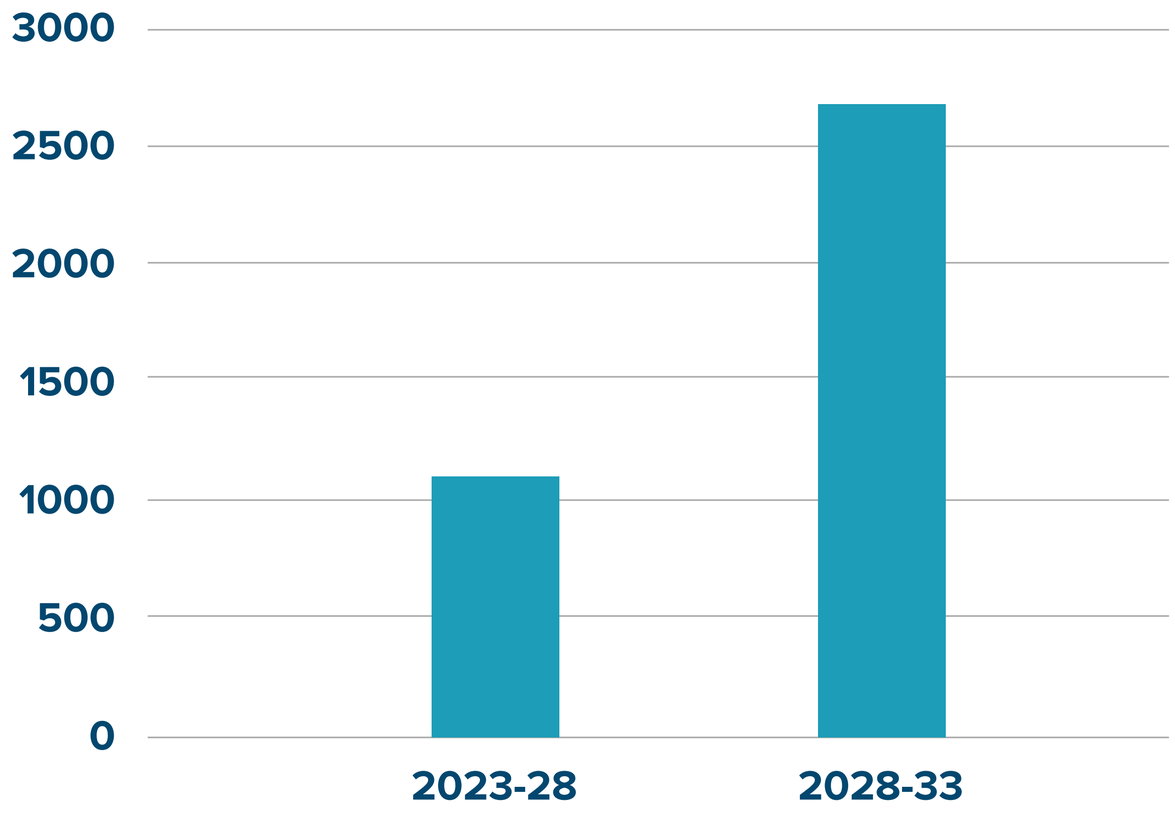


CHART 3.5 : INTERNATIONAL COLLABORATIONS FOR RESEARCH

3.5 BUDGET REQUIREMENT FOR PROMOTION OF R & D IN UNIVERSITY

The University promotes and incentivizes research and development through schemes such as seed grant money, FIIP, professional development fund, and research incentives. The university also offers support for conference participation and the filing of IPRs. With increased R & D activities, the budget requirements are set according to the earlier projections.

BUDGET FOR FIVE YEARS



BUDGET

YEAR	BUDGET
2023-28	1100
2028-33	2600

FINANCIAL REQUIREMENTS FOR VARIOUS ACTIVITIES UNDER RESEARCH AND DEVELOPMENT

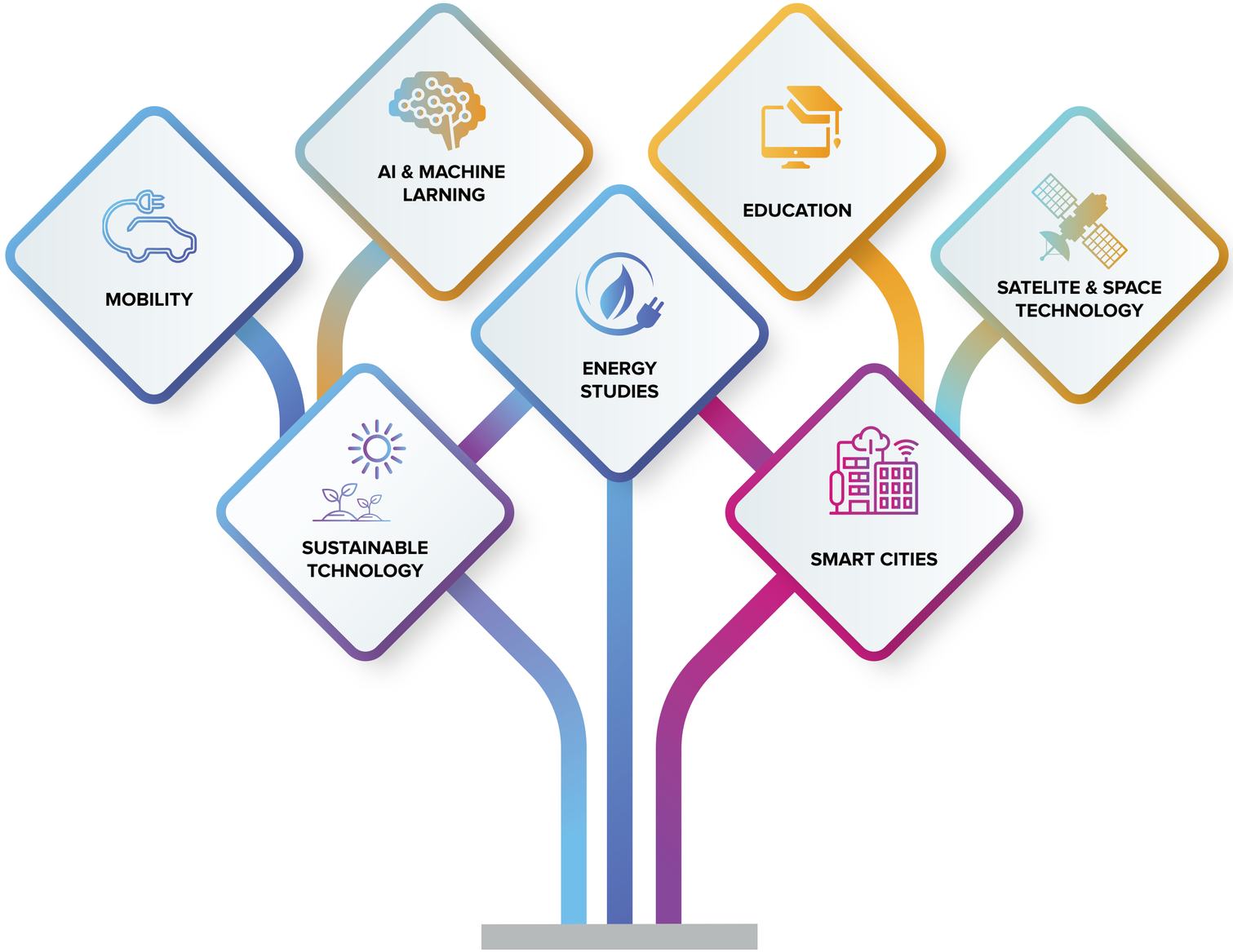
	AMOUNT IN RS. (LAKH)	
BUDGET HEAD	2023-28	2028-33
Establishment of Centre of Excellence	400	900
Salary of Dedicated Research Personnel	150	400
Seed Money Grant	250	600
Conference and Travel Support	150	350
Other Expenses	150	350
Total Budget	**1100**	**2600**

3.6 CENTRE OF EXCELLENCE IN EMERGING AREAS

The sustainable growth of research and innovation in the university can be realized through dedicated research centres which do not only carry out quality research but are also aligned with the regional, state and national priorities. The University will prioritize the development of the Centre of Excellence in various fields such as Mobility, Energy Studies, Sustainable Development, Education, application of Artificial Intelligence and Machine Learning, Smart Cities etc.

It is expected that the centres of excellence will largely contribute to the university's research goals. Following will be the objectives of establishing the Centre of Excellence (CoE):

- High-quality journal and conference publications. It is expected that the manpower involved with the centre of excellence will publish at least 2 papers per year per person which is likely to increase over years.
- Research Projects: The centre will collaborate with leading universities and research centres for funded research projects to improve international/national collaborations. The funding received from agencies will sustain the growth of CoE.
- Consultancy Projects: The centre of excellence will work in close collaboration with the industry and will bring consultancy projects. This will strengthen the industry-academia relationship and will also improve research and professional practice.
- Increased IPR: The solution or product developed in the CoE will enable the filing and awarding of more IPRs in the university. Moreover, the solution will be commercialized to generate more revenue for the university. Hence, more startups will be incubated in the university.

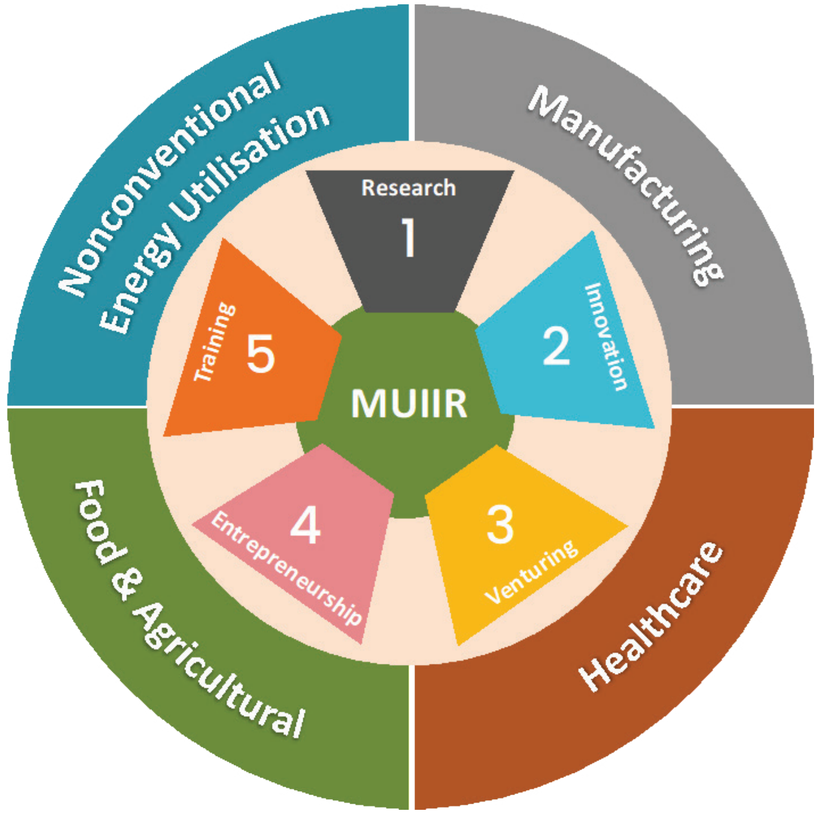

MOBILITY
AI & MACHINE LARNING
EDUCATION
SATELITE & SPACE TECHNOLOGY
ENERGY STUDIES
SUSTAINABLE TCHNOLOGY
SMART CITIES

3.7 CENTRE FOR INNOVATION, INCUBATION, AND RESEARCH (MUIIR)

The vision of the MUIIR is Reinventing a Conducive Ecosystem for NextGen Entrepreneurs. MUIIR is well connected to the state government (through Student Startup Policy, SSIP) as well as the central government (NewGen IEDC), and received a cumulative grant of more than 475 lacs (during 2017-22) through SSIP 1.0, SSIP 2.0, and NewGen IEDC.

CORE ACTIVITIES AND IDENTIFIED THRUST AREAS OF MUIIR

MUIIR focuses on 5^4 values (five core activities: Research, Innovation, Venturing, Entrepreneurship and Training, identified four thrust areas: Manufacturing, Healthcare, Food & Agricultural, and Non-conventional Energy Generation & Utilization) for next 5-10 years. These are highlighted in the diagram presented here. Various initiatives are planned to achieve these 5^4 values of MUIIR and are shown next and the number of activities planned are also tabulated.



VARIOUS INITIATIVES AND PROPOSED ACTIVITIES

1. SENSITIZATION PROGRAMME
2. EXPERT TALK / WEBINAR
3. WORKSHOP
4. INDUSTRY STARTUP INTERACTION
5. STARTUP & INNOVATION EXHIBITION
6. WOMEN STARTUP ENDEAVOURS
7. INNOVATION CHALLENGES / HACKATHON
8. CAPACITY BUILDING PROGRAMME
9. INTELLECTUAL PROPERTY RIGHT AWARENESS
10. INNOVATION DRIVE
11. IMPORT SUBSTITUTION
12. MENTORING MENTORS
13. PITCHING BUSINESS IDEAS
14. SENSITIZATION OF INVESTORS (INTO INITIAL PHASE)

INITIATIVES	YEAR		
	2017-23	2023-28	2028-33
Expert Talk + Webinar + Workshop	62	20	20
Industry Startup Interaction	2	10	10
Startup & Innovation Exhibition	3	20	20
Women Startup Endeavours	4	10	10
Innovation Challenges / Hackathon / Startup Weekend	8	10	10
Capacity Building Programme	22	40	40
Intellectual Property Right Awareness	15	20	20
Innovation Drive	0	10	10
Import Substitution	0	10	10
Mentoring Mentors	0	20	20
Pitching Business Ideas	23	50	50
Sensitization of Investors	0	10	10
Total	**139**	**230**	**230**

Various activities conducted so far in line with mentioned initiatives and proposed activities for the next five years are mentioned in Table above. Budgetary requirements for conducting events are included in the financial section.

In order to achieve these 5^4 values, it is essential to have an expansion of MUIIR in terms of space and its relevant infrastructure, facilities (hardware and software), and manpower with a specific allocation of finance. This expansion will yield the specific desired outcome of MUIIR.

It is also proposed to develop dedicated space and facilities for refreshment, meditation, networking, and entertainment-related zones. Budgetary requirements related to this section are included in the financial breakup table shown below.

INITIATIVES	YEAR		
	2018-23	2023-28	2028-33
Activities*	--	43.75	50.00
Space/Infrastructure**	25.00	375.00	100.00
Hardware and Software***	20.00	95.00	100.00
Venturing to Startups	5.70	500.00	600.00
Manpower****	10.80	295.96	340.50
Training of Existing Manpower	--	12.50	14.00
Other Requirements	--	--	--
Total (in lakhs)	**61.50**	**1321.61**	**1204.50**

*Inclusive of IPR filing and exclusive of innovation drive

**fund received in the year 2017-18 and 2018-19

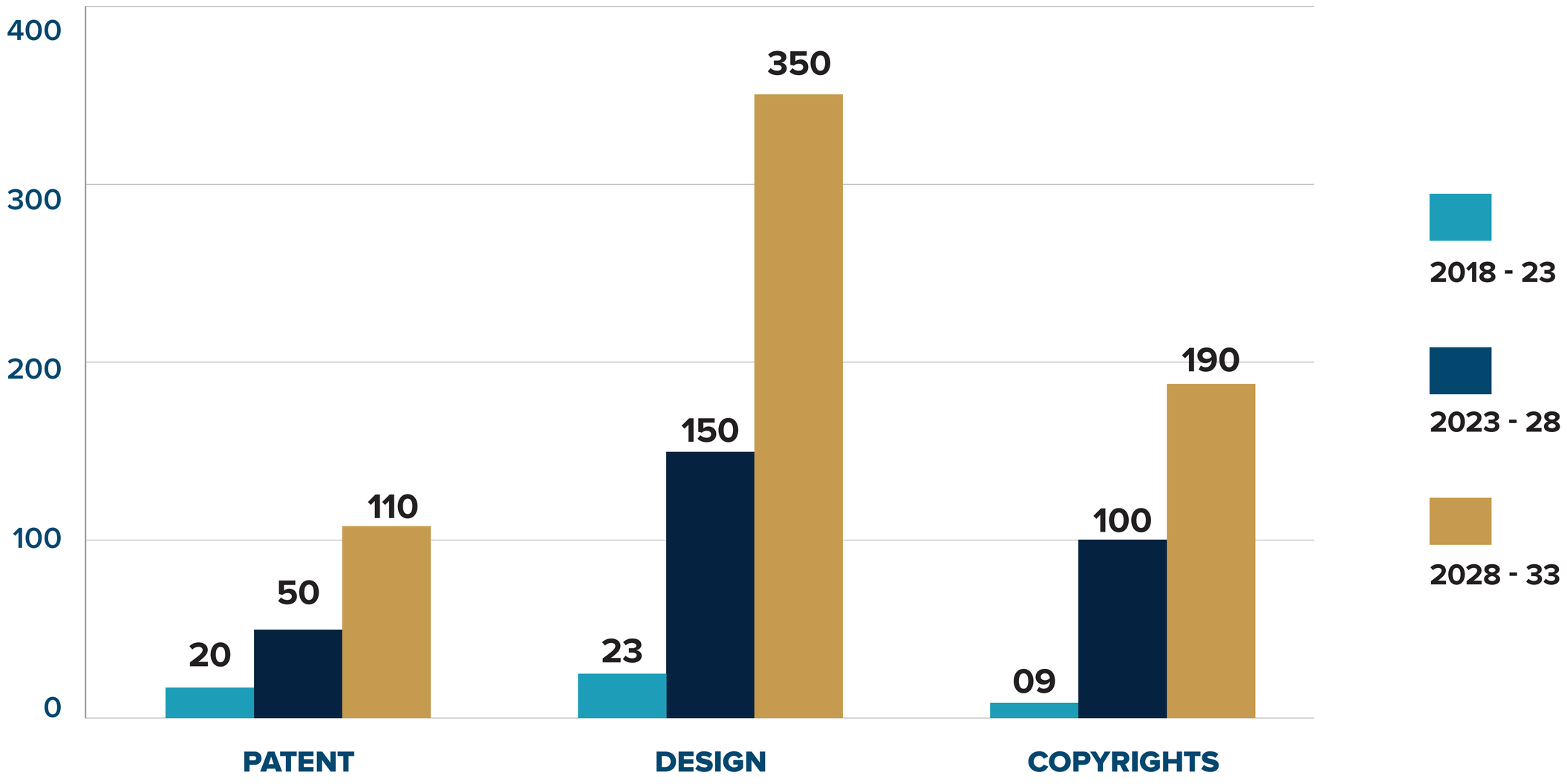
***partial hardware and software related facilities have already been funded by SSIP and NewGen IEDC during 2017-21.

****salary of two executives is funded by NewGEN IEDC under admin expenses. The salary of existing manpower has not been included. This includes the salary of the IPR chair (equivalent to a professor) and two IPR executives, and they are subjected to the approval of the IPR chair. This will be funded by the DIPP-Government of India

EXPECTED OUTCOMES

Outcomes (year-wise) in the context of different activities related to various initiatives proposed by MUIIR for engaging students, and motivating them to work in the domain of innovation and entrepreneurship are already mentioned earlier. It is proposed to develop a state of art innovation and incubation center, MUIIR 2.0, in a space range of 7500-10000 sq. ft. that will really help in building the brand of the university. It is also proposed to develop an innovation hub by conducting various innovation drives that will empower students to showcase their innovative products developed during the drive. Eventually, this will aid in building an ecosystem at the university level. This will further yield in various startups, IPRs etc. MUIIR has collaborated with some renowned incubators and funding agencies. Furthermore, it is planned to expand and maintain a strong network for enhancing the capabilities of students, faculties, and mentors.

EXPECTED OUTCOMES IN IPR FILLING



ALIGNING WITH THE GOAL OF THE GOVERNMENT OF INDIA FOR ENTREPRENEURSHIP

The innovation center will work towards the goal of increasing entrepreneurship as projected by the Government of India. The center will seek funding from the government under different schemes such as:

- STARTUP INDIA
- ATAL INNOVATION MISSION (AIM)
- MAKE IN INDIA
- DIGITAL INDIA
- SUPPORT TO TRAINING AND EMPLOYMENT PROGRAMME FOR WOMEN (STEP)
- PRADHAN MANTRI KAUSHAL VIKAS YOJANA (PMKVY)

CHAPTER - 4

TALENT MANAGEMENT

4.1 INTRODUCTION

Faculty are the lifeblood of any higher educational institution. They are directly responsible for providing superior experience to the students who enroll for their higher education. Their passion, hard work, and genuine interactions contribute to maintaining the institution's reputation.

Marwadi University has a very diverse group of faculty members. The University has a healthy gender diversity and representation of 21 states of India in the faculty group. Marwadi University focuses on all round development of Faculty in the university by providing various experiences in and out of the campus.

22% faculty in MU is serving at the senior levels of Associate Professors and Professors. 37% of the faculty members have completed their PhD. By 2033, the university aspires to have 33% faculty at the senior positions and 75% of the faculty with doctorate degrees. By 2033, MU expects to maintain a faculty student ratio of 1:20 from the present 1:30. It is important that faculty is hired from diverse and global backgrounds to ensure that the faculty blends in world class curriculum and pedagogy and the students are imparted education which is in line with global standards. It is important that the institution also works on a faculty development and retention strategy to harness their talent.

END STATE OUTCOMES FOR TALENT MANAGEMENT - TEACHING

PARTICULARS	2023-24	2024-25	2025-26	2026-27	2028-33
Number of Faculty with PhD	155	209	280	339	472
Visiting Faculty / Adjunct Professors from Industry	46	56	68	68	79
No. of Professor of Practice / Research Professors	10	17	20	24	39
No. of Emeritus Professor	06	08	10	11	02
No. of Faculty with Post Doc	06	10	14	19	37
No. of PhD Supervisors	129	177	253	302	438
No. of Male Faculty Members	347	325	337	347	389
No. of Female Faculty Members	184	181	199	216	257
No. of Professors	49	53	57	61	75
No. of Associate Professors	96	107	115	124	149
No. of Assistant Professors	368	389	406	417	460
No. of Teaching Assistants	42	47	51	56	70

4.2 STRATEGIES FOR TALENT MANAGEMENT

- Employee Climate Survey
- Strengthening and Streamlining Performance Appraisal and Review Process
- Streamlining Buddy System for New Employees
- Succession Planning through Job / Portfolio Rotation
- Leadership Development Programme
- Faculty Development Initiatives
- Appointment of Professors of Practice
- Appointment of Emeritus Professors
- Appointment of Research Professors

EMPLOYEE CLIMATE SURVEY

Employee perception and perspective studies will be conducted as part of employee climate surveys. The surveys will ask about attitudes and worries that will assist the University in working with employees to implement constructive changes.

STRENGTHENING AND STREAMLINING PERFORMANCE APPRAISAL AND REVIEW PROCESS

Currently the University has a Performance Based Appraisal System (PBAS) in the UniERP. More training and sensitization programmes will be organized for the employees to leverage the same.

STREAMLINING BUDDY SYSTEM FOR NEW EMPLOYEES

A buddy system is an approach to onboarding new employees that encourages knowledge sharing. Each new hire is paired with an existing employee who mentors them during their initial weeks in the job. Both parties share information.

It makes it simple for the new employee to impart advice, know-how, and skills gained from prior work experiences. By encouraging creative thinking and allowing the new employee to provide confidential feedback, the idea exchange benefits the organization.

LEADERSHIP DEVELOPMENT PROGRAMME

The University plans to organize Leadership Development Programme for Deans, Directors and other senior officials with an objective to

- Learn strategies to help their team and organization overcome the most difficult obstacles.
- Gain a thorough understanding of how alignment can be used to create a high performance culture and acquire the necessary skills (performance and psychological),
- Develop University's capacity for change, flexibility, and resilience against outside forces,
- Develop the abilities necessary to effectively develop leadership throughout their department and University
- Receive feedback on their management and leadership style as well as information about the needs of their own team.

		2023-24		2024-25		2025-26		2026-27		2027-28	
NUMBER OF PROGRAMMES PLANNED	TOTAL ESTIMATED BUDGET (IN LAKHS)	NUMBER OF PROGRAMMES PLANNED	TOTAL ESTIMATED BUDGET (IN LAKHS)	NUMBER OF PROGRAMMES PLANNED	TOTAL ESTIMATED BUDGET (IN LAKHS)	NUMBER OF PROGRAMMES PLANNED	TOTAL ESTIMATED BUDGET (IN LAKHS)	NUMBER OF PROGRAMMES PLANNED	TOTAL ESTIMATED BUDGET (IN LAKHS)	NUMBER OF PROGRAMMES PLANNED	TOTAL ESTIMATED BUDGET (IN LAKHS)
13	30	13	31.5	13	33	13	35	65	200		

FACULTY DEVELOPMENT INITIATIVES

The University is committed to the all-round development of the faculty. For the same the university focuses on the following:

- Faculty Industry Immersion Programme (FIIP)
- Faculty Development Programme (In-house)
- Sponsored Participation in Faculty Development Programme (Other Institutions)
- National and International Conferences (In-house)
- Sponsored Participation in National and International Conferences
- Sponsored Memberships in Professional Bodies

The projections for Faculty Development Initiatives for the Next 10 years are as follows:

SR NO.	METRICS/ YEAR	2023-24		2024-25		2025-26		2026-27		2027-28	
		NUMBER OF PROGRAMMES PLANNED	TOTAL ESTIMATED BUDGET (IN LAKHS)	NUMBER OF PROGRAMMES PLANNED	TOTAL ESTIMATED BUDGET (IN LAKHS)	NUMBER OF PROGRAMMES PLANNED	TOTAL ESTIMATED BUDGET (IN LAKHS)	NUMBER OF PROGRAMMES PLANNED	TOTAL ESTIMATED BUDGET (IN LAKHS)	NUMBER OF PROGRAMMES PLANNED	TOTAL ESTIMATED BUDGET (IN LAKHS)
1	Paid FDPs	22	25.65	28	33.16	29	41.67	32	59.59	140	339.81
2	National Conferences	06	20.3	06	20.33	08	28.86	08	29.39	28	206.43
3	International Conferences	04	37.3	05	26.83	06	54.86	08	60.39	29	379.43
4	FIIP	24	08.1	33	12.11	44	16.62	51	20.19	191	112.39
Total Budget for Faculty Development			**91.35**		**92.43**		**142.01**		**169.56**		**1038.06**

In addition to the above initiatives training and sensitization programs on the following are scheduled on a regular basis:

- Induction Programme
- UniERP and Examination Related Training
- Sensitization programme for Research, funding and conferences
- POSH
- Code of Conduct

APPOINTMENT OF PROFESSORS OF PRACTICE (POP):

Professor of Practice (PoP) helps bring together academic knowledge and real-world experience. This will help to take real world practices and experiences into the class rooms and also augment the faculty resources in higher education institutions. In turn, the industry and society will benefit from trained graduates equipped with the relevant skills. The people who are chosen for the Professor of Practice series are well-known professionals who are either still working or have retired. PoPs help faculty, students and research scholars understand how a certain field of study works in the real world. Professors of Practice will guide students, and work together on projects that are directly related to what they know and have done. A formal academic qualification is not considered essential for this position if they have exemplary professional practice in lieu.

APPOINTMENT OF EMERITUS PROFESSOR

This position is created at the University in order to attract eminent faculty who can guide research and academic activities based on their expertise. The primary objective of the Emeritus Professor is to promote Research and Development (R&D) activities within the department and serve as a mentor to the department's faculty. A Professor Emeritus may continue academic work within the scope of the Area to which he or she is attached.

APPOINTMENT OF RESEARCH PROFESSOR

This position has the same responsibilities as a Professor, but no teaching or service obligations. The individual must possess a doctoral degree and relevant research track in the hiring discipline. The candidate must demonstrate the ability to conduct independent research and supervise research at the undergraduate and graduate levels. The Research Professor will receive a renewable annual contract and undergo annual reviews and is contingent on the availability of funds.

CHAPTER - 5

ENHANCING STUDENT CAREER OUTCOMES

5.1 PLACEMENTS - AN OVERVIEW

There are over 400 recruiters visiting the University annually. As per the last five years trend, the average package of the University is increasing at the rate of 16% annually. The number of MNCs recruiting from campus is also increasing at the rate of 9% annually. Out of total students' strength 65% students register for placements. Rest of the students opt for starting their own venture or joining their family business or higher studies in India or abroad. The University team is working towards implementing various training, counseling sessions and mock interviews. Students are also sensitized in terms of importance of internships in Industry. With the implementation of above initiatives it is expected that MU will achieve the placement percentage of 80% by 2028 and of 90% by 2033 along with an average package to 7.5 LPA by 2028 and 10 LPA by 2033.

5.2 FUTURE HIRING TRENDS

Hiring trends indicate a shift towards multidimensional skills with a stress on attitude to learn new and advanced technologies. AI enabled recruitment processes will play a vital role in the selection process in coming times. Industries which will play a vital role in terms of hiring freshers include IT/ITes, FMCG, Manufacturing and Healthcare. Disruptive technologies (Brittle Anxious Nonlinear and Incomprehensible) will throw up new challenges and by anticipating these along with adequate preparation they can be converted into opportunities. New tools of recruitment are evolving to keep pace with online and hybrid modes of recruitment which are here to stay. Psychological assessments will be the key process in the campus recruitment.

5.3 INFRASTRUCTURE UPGRADATION

In order to keep pace with the impact of technology on hiring practices, the infrastructure will be upgraded appropriately including smart labs and tech enabled interview cabins on campus.

5.4 SKILLS AND TECHNOLOGIES

In the coming years, skills will be the prime focus on hiring talent from the University. Thus the students will have to be well versed with recent and cutting-edge technologies like robotics, AI, internet of things, machine learning, analytics, cloud, 3D printing, soft skills along with domain expertise to be successful.

5.5 INTERNSHIPS

The university emphasizes skill enhancement through internships. There is scope to improve the current ratio of students undergoing internship. Hence it is planned that a dedicated slot will be embedded in the curriculum of each program.It is expected that at the end of 2028, 50% of the students and at the end of 2033, 80% of the students passing out from the university would have undergone at least one internship during their tenure in the university.

5.6 SPECIALIZED LABS IN COLLABORATION WITH INDUSTRY

In anticipation of industry requirements and given the pace of rapid technological change we target to establish two specialized labs in collaboration with Industry by 2028 and five more such labs by the end of 2033. These would serve the purpose of providing hands-on experience in cutting edge technology which will provide students and faculty with research and employment opportunities.

5.7 CURRICULUM DEVELOPMENT INLINE WITH THE INDUSTRY REQUIREMENTS

Given the location of the university in Rajkot, the hub of Automotive, Foundry, Forging, allied manufacturing industries and growing IT industry, MU will actively collaborate with local industry to offer industry specific courses designed in consultation with industry to benefit students. Besides, MU will also actively collaborate for sponsored research in areas of mutual interest.

5.8 TRAINING FOR THE FUTURE

After completing a program of study, students must have and be able to exhibit the expected graduate attributes that they have gained through one or more modes of learning, according to the NHEQF (National Higher Education Qualification Framework). Graduate characteristics include the ability to broaden one's present knowledge base and skill set, acquire and apply new knowledge and skills, pursue further education on one's own, succeed in one's chosen field, and contribute positively to society as a responsible citizen.

The NHEQF levels are a set of sequential stages that are expressed in terms of a variety of learning objectives, with typical qualifications being positioned against them.

5.8.1 TABLE 1: HIGHER EDUCATION QUALIFICATIONS DIFFERENT LEVELS ON THE NHEQF

NHEQF Level	Higher Education Qualifications
Level 4.5	Undergraduate certificate : First two semester of UG programme
Level 5	Undergraduate Diploma: First four semesters of UG programme
Level 5.5	Bachelor’s Degree: First six semesters of UG programme
Level 6	Bachelor’s Degree (Honors/Honors with Research): Eight semesters of UG programme

LEVEL - 4.5

- Digital Literacy & Skill
- Ethics & Values
- Basics Of Communication Skills
- Learning How To Learn

LEVEL - 5

- Empathy
- Advance Communication Skill
- Creativity
- Verbal Ability

LEVEL - 5.5

- Quantitative Aptitude & Logical Reasoning
- Advance Communication Skills
- Creativity, Innovation & Problem Solving
- Collaboration & Team Work
- Cross Cultural Awareness
- Advance Coding Skills

LEVEL - 6

- Critical Thinking
- Self Leadership
- Group Discussion
- High Impact Presentation Skills
- Personal Interviews & Resume Drafting

CHAPTER - 6

COMMUNITY OUTREACH & SOCIAL INITIATIVES

6.1 INTRODUCTION

The stated vision of MU is to impact people, organizations and societies through education, ideas, research and training. With this aim, to serve society and to address societal problems, MU has a dedicated team under the 'Center for Civic Engagement and Action' (CCEA) with its functions as below:

6.2 COMMUNITY DEVELOPMENT

Strengthening local communities, integrating marginalized groups and enhancing cooperation among local stakeholders are the areas where MU focuses.

MU - CCEA is formed to act as a bridge between the local authorities and government by facilitating communication between them. It will also involve developing a group of researchers from the university who will dedicatedly research on social issues.

It is planned that by 2028, 200 events and by 2033, 450 events spread across various projects like educating children from marginalized backgrounds, cleanliness drives and developing leadership skills in local youth by providing training.

6.3 SUSTAINABLE DEVELOPMENT THROUGH REDUCING, REUSING AND RECYCLING

Focusing on the concept of a green campus, buildings in the campus are installed with solar roof-top panels. Continuing our commitment towards green campus, it is planned to increase the usage of renewable energy, installation of sensors for automatic control of lights & appliances, rainwater harvesting, plastic recycling, promoting the use of eco-friendly material and energy efficient devices.

By 2028, 300 and by 2033, 680 sensitization programmes are planned to be organized at different levels by students and faculty members.

6.4 PHILANTHROPY

To serve the local community by providing basic amenities including food, clothing, medicines, reading material.
By 2028, 50 and by 2033, 100, such drives are planned in the surrounding villages.

6.5 ACADEMIC CREDIT WEIGHTAGE FOR COMMUNITY OUTREACH

In order to give due credit to community engagement, to encourage participation of students in such services and in line with the recommendations of NEP 2020, students will be given credits for active community service as part of the curriculum.

CHAPTER - 7

CONCLUSION

MU@2033

7.1 ACADEMICS

Programs
130

Interdisciplinary Programs
23

Industry Collaborative Programs
46

Programs With Elite Institutions
44

Programs With Edtech Interventions
20

Faculty Exchange Programs (International)
82

Programs Catering To Regional Needs
20

Dual Degree Program
50

Joint Degree Programs
15

Skill Courses
125

7.2 RESEARCH

Total Centres of Excellence
7

Total Publications
3364

Patents filed
650

Revenue from Consultancy
950 LACS

International collaborative publications
693

National Collaborative publications
792

7.3 FACULTY

Total Faculty
700

Faculty With PhD
475

Adjunct Faculty
80

Professors of Practice/ Research Professor
40

Emeritus Professors
20

7.5 STUDENT CAREER OUTCOMES

Placement Ratio
90%

Average Package
10 LPA

Internship Ratio
80%

Training Coverage (4 Levels)
100%

7.6 COMMUNITY OUTREACH

Community Development Events
450

Sensitization Programs for Sustainable Development
680

Philanthropy Drives
100

7.6 STRATEGIES

In order to achieve the above set milestones, the following strategies will be adopted

- Focus on skill development programs.
- Continuous program evaluation to meet the industry expectations.
- Enhancing outreach to increase diversity of faculty and students
- Launching MOOCs for reaching beyond geographical boundaries
- Leveraging Marwadi University Centre for Innovation, Incubation & Research (MUIIR) and Centre for Entrepreneurship and Family Business (CEFB)
- Leverage corporate networks for enhanced academic, research and career outcomes
- Aptitude and soft skills training programs and psychometric testing embedded in curriculum for enhancing student career outcomes
- Creating specialized clubs (eg: coding club) across faculties to improve domain expertise in line with industry requirements.
- Enhance student exchange and faculty exchange programs
- Promoting research and academic participation among faculty and students through recognition schemes.
- Investment in faculty development to attract and retain quality faculty.
- Enhancing alumni engagement
- Offering scholarships to attract more meritorious students (state/national rank holders)
- Facilitating inter-department faculty exchanges to encourage interdisciplinary academics and research.
- Launching programs to cater to the needs of local industries.
- Enhancing extra-curricular and co-curricular participation through student driven clubs.

APPENDICES

APPENDIX - 1

DEPARTMENT SPECIFIC DATA

Table (1): Growth Projections by Various Departments

DEPARTMENT	2023-24	2024-25	2025-26	2026-27	2028-33
FOT	4	6	3	2	6
FOS	1	4	1	0	0
FOCA	1	0	2	0	4
FMS	2	1	4	3	7
FPT	0	1	0	0	0
FOP	2	0	0	0	2
FOL	2	1	1	0	1
FOA	0	0	0	0	0

Table (2): Projections of Interdisciplinary Programmes

DEPARTMENT	2023-24	2024-25	2025-26	2026-27	2028-33
FOT	1	0	2	0	3
FOS	0	2	1	0	0
FOCA	0	0	1	0	1
FMS	1	1	0	0	1
FPT	0	0	0	0	0
FOP	0	0	0	0	1
FOL	0	1	0	0	0
FOA	-	-	-	-	-

Table (3): Projections of Industry Collaborated Programmes

DEPARTMENT	2023-24	2024-25	2025-26	2026-27	2028-33
FOT	5	2	1	2	6
FOS	0	1	0	1	1
FOCA	0	1	0	1	2
FMS	0	0	0	0	0
FPT	1	2	1	2	3
FOP	0	0	0	0	1
FOL	0	1	0	1	0

Table (4): Projections of Programmes with other elite institutions

DEPARTMENT	2023-24	2024-25	2025-26	2026-27	2028-33
FOT	2	3	3	2	4
FOS	1	2	0	0	3
FOCA	1	2	1	1	2
FMS	0	0	0	0	1
FPT	0	0	0	0	0
FOP	0	0	1	0	0
FOL	1	1	0	0	1

Table (5): Projections of Programmes with EdTech Interventions

DEPARTMENT	2023-24	2024-25	2025-26	2026-27	2028-33
FOT	1	0	3	0	2
FOS	0	0	1	0	1
FOCA	1	0	0	0	2
FMS	1	1	0	0	0
FPT	0	0	0	0	0
FOP	0	0	0	0	1
FOL	1	1	0	0	1

Table (6): Programmes for Regional Needs

DEPARTMENT	2023-24	2024-25	2025-26	2026-27	2028-33
FOT	1	0	3	0	2
FOS	0	0	0	0	1
FOCA	1	0	1	0	2
FMS	1	2	0	0	0
FPT	0	0	0	0	0
FOP	0	0	0	0	1
FOL	0	1	0	0	1

Table (7-A): Programmes for Working Professionals

DEPARTMENT	2023-24	2024-25	2025-26	2026-27	2028-33
FOT	1	1	0	0	2
FOS	0	0	0	1	0
FOCA	0	0	1	0	1
FMS	0	0	0	0	0
FPT	0	1	1	0	0
FOP	0	0	0	1	1
FOL	1	0	1	0	1

Table (7-B): Programmes for Unemployed

DEPARTMENT	2023-24	2024-25	2025-26	2026-27	2028-33
FOT	0	0	0	0	0
FOS	0	3	0	0	1
FOCA	0	1	0	1	2
FMS	1	0	2	0	0
FPT	0	0	0	0	0
FOP	0	0	0	0	2
FOL	1	0	1	0	1

Table (7-C): Programmes for Failed Candidates

DEPARTMENT	2023-24	2024-25	2025-26	2026-27	2028-33
FOT	0	0	0	0	1
FOS	0	2	0	0	0
FOCA	0	1	0	1	2
FMS	0	0	0	0	0
FPT	0	0	0	0	0
FOP	0	0	0	0	0
FOL	1	0	1	0	1

Table (7-D): Programme for Economically / Physically Challenged

DEPARTMENT	2023-24	2024-25	2025-26	2026-27	2028-33
FOT	1	0	0	1	0
FOS	0	0	1	0	0
FOCA	0	0	1	0	2
FMS	0	0	0	0	0
FPT	0	0	0	0	0
FOP	0	0	0	0	1
FOL	1	0	1	0	1

Table (8-A): Professor of Practice

DEPARTMENT	2023-24	2024-25	2025-26	2026-27	2028-33
FOT	5	2	1	2	9
FOS	0	2	2	0	2
FOCA	1	1	0	0	2
FMS	2	1	0	1	1
FPT	0	0	0	0	0
FOP	0	1	0	1	1
FOL	1	0	0	0	0

Table (8-B): Emeritus Professors

DEPARTMENT	2023-24	2024-25	2025-26	2026-27	2028-33
FOT	4	0	1	1	6
FOS	0	1	1	0	2
FOCA	1	0	0	0	1
FMS	0	0	0	0	0
FPT	0	1	0	0	0
FOP	0	0	0	0	1
FOL	1	0	0	0	0

Table (9): Innovative Assessments

DEPARTMENT	2023-24	2024-25	2025-26	2026-27	2028-33
FOT	3	2	1	3	5
FOS	0	2	1	1	3
FOCA	0	0	0	0	0
FMS	0	0	0	0	0
FPT	0	1	0	0	0
FOP	0	0	0	0	0
FOL	0	2	0	2	2

Table (10): Professional Associations

DEPARTMENT	2023-24	2024-25	2025-26	2026-27	2028-33
FOT	15	7	9	3	21
FOS	5	1	0	0	5
FOCA	10	5	5	0	0
FMS	30	10	0	10	15
FPT	5	2	0	0	0
FOP	5	0	0	0	0
FOL	1	1	1	1	2

Table (11 - A): Dual degree

DEPARTMENT	2023-24	2024-25	2025-26	2026-27	2028-33
FOT	1	1	1	1	4
FOS	0	0	0	0	1
FOCA	0	0	0	1	1
FMS	0	0	0	0	0
FPT	1	0	0	0	0
FOP	1	0	0	0	1
FOL	0	0	2	0	2

Table (11 - B): Joint degree

DEPARTMENT	2023-24	2024-25	2025-26	2026-27	2028-33
FOT	1	1	2	1	4
FOS	0	0	0	0	0
FOCA	0	1	0	1	1
FMS	0	0	0	0	0
FPT	0	0	0	0	0
FOP	0	1	0	0	0
FOL	1	0	0	1	0

Table (12): Skill courses

DEPARTMENT	2023-24	2024-25	2025-26	2026-27	2028-33
FOT	6	7	9	9	24
FOS	4	3	2	2	4
FOCA	1	1	1	2	3
FMS	2	3	3	3	8
FPT	0	0	0	0	0
FOP	1	1	1	1	2
FOL	1	1	2	2	6

Table (13): Open Electives to be introduced

DEPARTMENT	2023-24	2024-25	2025-26	2026-27	2028-33
FOT	2	0	1	1	10
FOS	0	0	0	1	1
FOCA	0	0	0	1	1
FMS	3	3	3	2	0
FPT	1	0	0	0	0
FOP	1	0	0	0	1
FOL	0	0	2	0	2

Table (14): Accreditations in Plan

DEPARTMENT	2023-24	2024-25	2025-26	2026-27	2028-33
FOT	NBA	-	-	NBA	NBA
FOS	-	-	-	-	-
FOCA	NBA	-	-	NBA	NBA
FMS	NBA	-	-	NBA, AMBA	NBA, AMBA, AACSB
FPT	-	-	-		-
FOP	-	-	-	-	-
FOL	-	-	-	-	-
MU	NIRF NAAC QS:iGAUGE	NIRF THE ISO:20001:2018 ISO:56002:2019	NIRF	NIRF	NIRF NAAC

APPENDIX - 2

DEPARTMENT SPECIFIC REMARKS ON NEW INITIATIVES

SR NO.	DEPARTMENT	CRITERIA	REMARKS
1	Faculty of Pharmacy (FoP)	Degree (Interdisciplinary)	Pharmaceutical Management
		Regional Needs	Pharmaceutical marketing, Medical device
		Online Courses / Distance Education Courses	Regulatory Affairs, Clinical report writing
		Working Professionals	QbD: Quality by Design DoE: Design of Experiments PAT: Process Analytical Technology AQbD: Analytical Quality by Design
		Short term courses for economically/physically challenged	Medical writing
		Leveraging NSQF	LSSSDC: Life Sciences Sector Skill Development Council
		Laboratories	M. Pharm. Research laboratories
2	FoT CE AI & BD	Industry Supported Labs	Industry oriented lab viz. Intel, meta etc
3	ELECTRICAL .ENGINEERING	Degree (Discipline Specific)	Integrated M. Tech. can be offered from AY 2024-25
		Degree (Interdisciplinary)	Integrated MBA can be offered from AY 2024-25
		Accreditations / Awards	NBA or ABET accreditation
		Special center for learning, research, skill development	Two Centre of Excellence are proposed for next 10 years
4	MICROBIOLOGY	Degree (Interdisciplinary)	BSc Forensic Science
		Diploma	PG Dip in Sophisticated Instrumentation Techniques
		Regional Needs	STTP in forensic Science or Food Chemistry
		Unemployed graduates	STTP in Agriculture or Dairy Technology
		Student Branches	ISCB and other international organization chapters

SR NO.	DEPARTMENT	CRITERIA	REMARKS
4	MICROBIOLOGY	Leveraging NSQF	Organo analytical based courses
		Number of student clubs	Journal club
5	MECHANICAL ENGINEERING	Degree (Interdisciplinary)	B.Tech course on Robotics Engineering will be added
		Industry Supported	Automation and rapid casting
		Other elite institutions	Joint degree course in collaboration with university of Dunaújváros
		Regional Needs	Specialization in current Programmeme based on regional need like Mechanical with specialization in Foundry technology etc. will be offered
		Accreditations / Awards	NABL accredited laboratory
		Industry Supported Labs	Bosch Rexroth Automation lab and Rapid casting lab are Industry supported
		Number of student clubs	CAD club, Automation club and CNC Programmeming club
6	FOT_CE	Number of Programmes being currently offered	Currently offering B. Tech (CE), M. Tech (CE) and M. Tech (Cyber Security). We are starting B. Tech (IoT), B. Tech (Cyber), B. Tech (Block chain)
		Degree (Interdisciplinary)	Integrated B. Tech + MBA
		Industry Supported	Oracle, Cisco, AWS
		Number of MOOCs incorporated in the curriculum	DBMS, AWS, Cisco, Infosys
		Student Branches	IEEE student chapter
		Industry Supported Labs	Cisco, Oracle, AWS, Infosys
7	CIVIL ENGINEERING	Number of Programmes being currently offered	Course in UG/PG related to IoT or Data science in Civil Engineering.
		Degree (Interdisciplinary)	M.Tech. Structural Health Monitoring will be offered.
		Industry Supported	Ultratech Cement
		Edtech Companies	L&T Edutech
		Student Branches	Planning to start IGS chapter.
		Number of student clubs	Model making Club
		Laboratories	Press stressed concrete lab, Seismic analysis of structure software labs

SR NO.	DEPARTMENT	CRITERIA	REMARKS
8	CHEMICAL ENGINEERING AND ENVIRONMENTAL ENGINEERING	Degree (Discipline Specific)	2024- BTech- Biotechnology /Biochemical Engineering, PgDiploma in Health and safety
		Diploma	2026:- PG diploma in Application of Ansys/Aspen
		Student Branches	2022- student chapter of IIChE, 2024 - Student Chapter of InDA
		Industry Supported Labs	Unit Operation lab and Process Engineering Lab
		Open Electives	2023 - Waste management, 2025 - Environmental Pollution and control
		Number of student clubs	2023- Green Club, 2024 -Chemo Club
		Laboratories	Labs focused on Petroleum Engineering
9	FCA	Degree (Discipline Specific)	BCA (CS) / BCA (AI & ML)
		Degree (Inter Disciplinary)	BCA (Cyber Law), MCM, BSc (IT) (Infrastructure Management)
		Unemployed graduates	Hardware & Networking / Tally / Web Designing / Office Automation
		Failed candidates	
		Short term courses for economically/physically challenged	
10	PHYSIOTHERAPY	Number of Programmes being currently offered	M. Physiotherapy Programme
		Industry Supported	Off Campus, Neurology/Musculo Skeleton/Cardio Pulmonary
		Accreditations / Awards	GSIRF
		Number of Active Members	GSCPT, IAP, RPA, SIP
		Number of Programmes to be offered in regional	Work in progress
		languages	Paediatric , Orthopaedic (Knee, Back, Shoulder)
		Special center for learning, research, skill development Any others	30-50 bedded hospital may be thought of to support clinical exposure to Physiotherapy, Pharmacy, Nursing, Laboratory technician students.
11	FoL	Industry Supported Labs	Industry Supported Legal Aid Clinics will be set up in forthcoming academic years
12	MATHEMATICS	Number of Programmes being currently offered	MA in Mathematics (2024-25) , M.Sc. In Statistics (2024-25)
		Degree (Discipline Specific)	M.Sc. In Statistics (2024-25)
		Working Professionals	SPSS and Advanced Excel

SR NO.	DEPARTMENT	CRITERIA	REMARKS
12	MATHEMATICS	Number of MOOCs incorporated in the curriculum	2022-2023 (Financial Mathematics), (Differential Equations for Engineers)
		Open Electives	2022-2023 (Statistics and Its Applications), 2023-24 (Vedic Mathematics)
		Number of student clubs	Maths club
		Laboratories	Mathematical & Computational Tools specific Computer Lab
13	PHYSICS	Number of Programmes being currently offered	MSc Nanoscience
14	FOT (INFORMATION TECHNOLOGY)	Number of Hybrid Learning Programmes (New Programmes)	Number of Hybrid Learning Programmes (New Programmes)
		Industry Supported Labs	Industry Supported Labs
15	ICT	Number of Active Members	IEEE,CSI,ISTE,IETE,IE
		Number of student clubs	Circuitology club, Chip design club, Security club, Engineering for society club, STEM activity club
16	FMS	New Programmes	BBA (BA) and Cert.export & import management, MBA (FinTech) 2024-25, Dip in Hotel Management, Travel & Tourism Management (25-26), BBA (Advt & Mass Communication) (26-27), 1 year PG Programme- MBA, MCom & MSc(Eco) (27-28), MBA (Family Business Management) and BCom (Stat) (28-29)
		Working professionals	MBA (Executive) (29-30) for working professionals
		No.of MOOC incorporated in the curriculum	Currently 18 | double in 5 years | 50 in 10 years
		Open electives	Current 9 | 19 in 5 years
		Student clubs	Finance, Marketing, HR, Cultural
		Special centers	Currently 1, Center for entrepreneurship & family business, planned - IKS
		Hybrid learning Programmes	1 (MBA-BA), 23-24 - 2; 24-25 - 1 MBA FinTech
		Professional body	No .of active members - 60, 90,110 etc., 0-1-1 RMA & NPC
		Accreditation	AMBA - Association of MBA schools (26-27) AACSB (2029-30)
		Regional Needs	Certificate course EXIM (23-24) Dip progams (2) hotel management, tourism (25-26)