MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

STRATEGIC PLAN
2018-2023

Malaviya National Institute of Technology Jaipur

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Malaviya National Institute of Technology Jaipur

<u>Vision Statement</u>
To create a centre for imparting technical education of international standards and conduct research at the cutting edge of technology to meet the current and future challenges of technological development.

<u>Mission Statement</u>
To create technical manpower for meeting the current and future demands of industry: To recognize education and research in close interaction with industry with emphasis on the development of leadership qualities in the young men and women entering the portals of the Institute with sensitivity to social development and eye for opportunities for growth in the international perspective.

Executive Summary

Performance of any institute has to be standardised on various parameters, so that all stakeholders can assess the present status and identify the way forward. Nationally, the institute was at 37th rank in 2016, 70th rank in 2017 and 52nd rank in 2018 National Institutional Ranking Framework of MHRD, GOI. Institute presently stands at 629th rank in SCIMAGO ranking internationally.

Internationally, some of the top ranked universities have a Student-to-Faculty ratio of 1:3 to 1: 17. Presently, MNIT Jaipur has a 1:23 Student-to-Faculty ratio, and it is aimed to improve the ratio to 1:18 by 2023, and to 1:10 by 2033. The average annual citations per faculty for the peers stand at around 99, and MNIT Jaipur has 30 citations. It is aimed to enhance the citations to 60 by 2023, and to 80 by 2033.

The international faculty ratio in the overall faculty strength of the top universities is as high as 0.563, and MNIT Jaipur is way behind at 0.01. It is aimed to enhance it to 0.03 by 2023, and to 0.2 by 2033. International student ratio in the overall student strength for some of the most reputed universities is as high as 34%, with MNIT Jaipur having 3.3% international students. It is aimed to increase it to 8% by 2023 and to 15% by 2033.

MNIT Jaipur aims to grow fast in international and national rankings, reflecting the contributions that it is making to research, industry and society. It aims to be within top 30 in NIRF ranking in 2019, and in top 20 in 2020, and to attain a rank within top 15 by 2023. Apart from this, it aims to be in top 500 universities internationally, by the year 2033, as is envisaged in its long term vision.

The Institute, through an inclusive approach, has developed a five year strategic plan for achieving above mentioned targets, identifying major goals that it aims to address, and specific activities it would require to take up in that regard. Focussed work needs to be done through six task major forces namely: academic, research, faculty, infrastructure, student and outreach task forces.

Some of the major challenges to be addressed with a focussed approach include:
- Faculty-Student ratio
- Research publications & patents
- International student ratio
- International faculty engagement
- Infrastructure expansion
- Outreach and public perception

Each task force has been assigned milestones that are to be achieved through an inclusive manner with all departments and units. A multi-level monitoring mechanism for accessing and facilitating progress has also been proposed with periodic reporting to the Board of Governors. With an effective implementation of this plan from 2018-19 to 2022-23, MNIT Jaipur is expected to be ranked among top Institutes in the country and would also be recognised globally for high quality education and research.

Five Step Approach for Strategic Planning

The strategic plan has been developed following the five step iterative process as given below:

- **Determining where we are:** This step was necessary to carry out analysis of present strengths and weaknesses of the Institute.
- **Identifying what is important:** This step helped the Institute align its objective with what is expected from an Institute of National Importance and an Institute of Eminence at international level.
- **Defining what we must achieve:** After identifying what is important, through this step, MNIT Jaipur has set targets for itself in various domains.
- **Defining accountability:** Assigning responsibility and accountability is critical for the successful implementation of any plan. Hence, each activity is assigned to appropriate level for successful implementation.
- **Establish monitoring process:** Progress of implementation of strategic plan has to be monitored at multiple levels, so as to have a transparent and effective monitoring. A system has been proposed in the plan itself for the same.

Figure-1: Iterative process of strategic plan development and monitoring

The entire exercise has been done through an iterative process, following an inclusive approach with whole-to-part and part-to-whole integration of ideas, thoughts, vision and specific actions planned.

Six Institutional Goals

Six Institute goals have been identified through a consultative process involving all major stakeholders, including faculty, students, industry, parents, alumni, policy makers.

Enhanced value to students

Enhanced value to industry

Enhanced value to society

Efficient and transparent organizational management

Enhanced self dependence

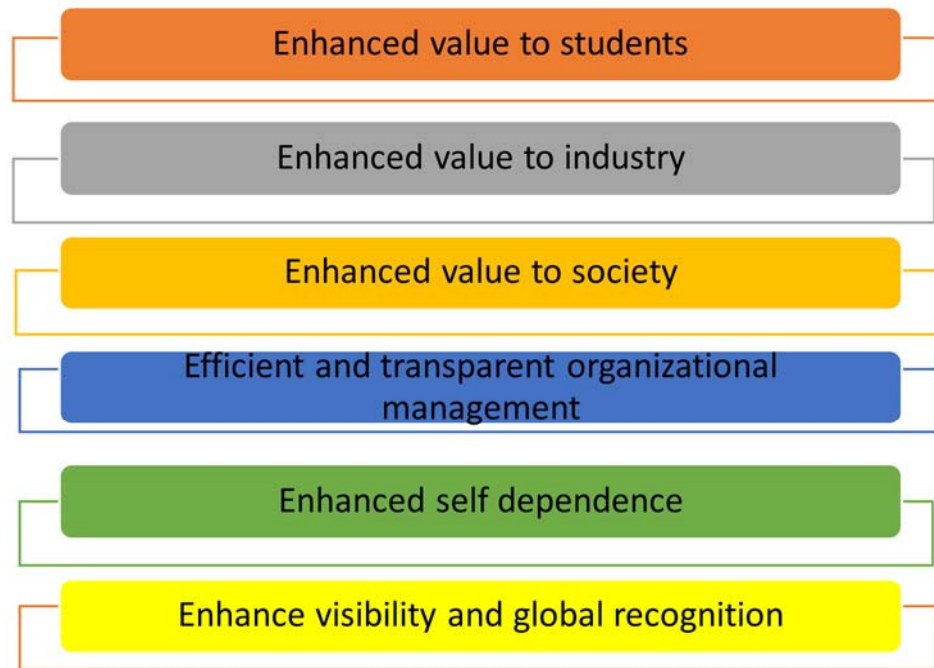Enhance visibility and global recognition

Figure-2: MNIT Jaipur's Institutional Goals

- **Enhanced value to students:** First duty of the Institute is towards the students studying, to provide them high quality education and impart appropriate skills.
- **Enhanced value to industry:** Being an Institute of technology, it is expected to offer value to industry within the country and outside. This may be through high quality manpower, carrying out Industry relevant research and many others.
- **Enhanced value to society:** Addressing societal problems through innovation and application of technology is identified as a major responsibility of the Institute.
- **Efficient and transparent organizational management:** High quality work environment is only possible through transparent governance. It also helps to ensure optimal utilization of available resources, employee satisfaction and emerge as an accountable organization.
- **Enhanced self-dependence:** In a competitive world, any Institute cannot thrive upon grants received. Keeping this in mind, financial sustainability has been kept as a long term goal for the Institute.
- **Enhance visibility and global recognition:** Outreach activities and visibility at appropriate level brings not only laurels to any organization, but it also helps to attract bright students, intelligent faculty, and contributing partners.

Malaviya National Institute of Technology Jaipur

Core Values of Institute

The Institute will strive to achieve the defined six goals through the following core values in its all system and sub-systems at all points of time:

Integrity

Reliability

Excellence

Accountability

Transparency

Empathy

Inclusiveness

Figure-3: Core values of MNIT Jaipur

Approach to achieve identified goals

In order to achieve identified goals, all major activities have been identified and grouped in six categories. Each category thus formed, makes a Task Force. Each Task Force has been divided into sub-task forces as per the nature of activity, as detailed:

Task force	Sub-task force	Major activity	Service to students	Service to industry	Service to society	Transparency	Sustainability	Visibility
Academic	Academic Expansion	New Programs	✔	✔	✔		✔	✔
Academic	Academic Standardization	Accreditation	✔	✔		✔		
Academic	Academic Enhancement	Off campus Programs	✔	✔	✔		✔	✔
Research	Research	Research Publications	✔					✔
Research	Consultancy	Consultancy services		✔			✔	✔
Research	Industry Engagement	Industry MoU		✔			✔	✔
Research	Entrepreneurship & Incubation	Incubation	✔	✔	✔		✔	
Faculty & staff	Regular Faculty	Recruitment	✔	✔	✔			
Faculty & staff	Visiting Faculty	Industry chairs	✔	✔			✔	✔
Faculty & staff	Staff	Recruitment				✔	✔	
Faculty & staff	Administrative Reforms	Digitisation	✔			✔	✔	
Infrastructure	Academic Infrastructure	Lab development	✔	✔			✔	
Infrastructure	Supporting Infrastructure	Student Housing	✔	✔	✔			
Infrastructure	Digital Infrastructure	ERP/MIS	✔	✔		✔		✔
Outreach	International Relations	International Faculty	✔	✔			✔	✔
Outreach	Alumni connect	Endowment					✔	
Outreach	Ranking Framework	International Ranking	✔			✔		✔
Outreach	Outreach	Digital Outreach	✔			✔		✔
Student Welfare	Skills & Placements	High Placements	✔	✔	✔			✔
Student Welfare	Extracurricular	Technical Activities	✔					✔
Student Welfare	Student Support	Scholarships	✔		✔			

Scope of work, action points and yearly targets for each Task Force have been prepared through collation of action points and targets suggested by individual departments and sections. These have been detailed in subsequent sections.

Details of

Task Force-1

ACADEMIC TASK FORCE

Lead: Dean-Academic Affairs

Task Force 1: Academic Task Force

Academic Task Force has been divided into three Sub Task Forces, namely:
- Academic Expansion Sub Task Force (AEX-STF)
- Academic Standardization Sub Task Force (AST-STF)
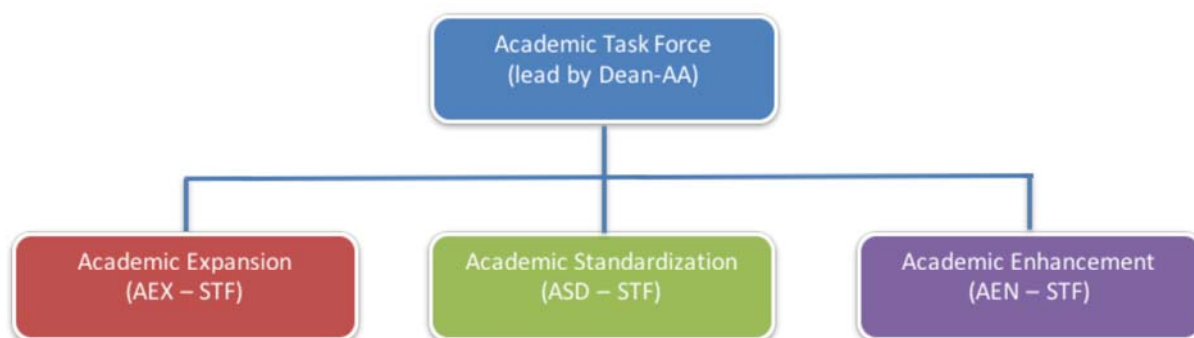- Academic Enhancement Sub Task Force (AEN-STF)

Figure-4: Structure of Task Force-1

Details of responsibilities and targets of each Sub Task Force are presented below:

I. **Sub Task Force 1.1:** Academic Expansion (AEX – STF)

Major objectives:
- Increase in student intake
- Increase in range of programs offered

Following activities have been identified to achieve above mentioned objectives:
- Starting of new Programs: Both in traditional and online mode
- Starting of new UG programs: New UG programs, new departments
- Starting of new PG programs: New Centres. New/review programs in departments, Increased intake
- Certificate/ Diploma programs: New program structure, Skill level based mapping
- Development of Continuing Education Programme Cell
- Periodic review of fee structure as per market demand-supply situation

Targets for AEX-STF:

Focus area	2017-18	2018-19	2019-20	2020-21	2022-23
UG programs	8	8	9	10	11
PG programs	28	29	29	30	30
Industry relevant PG Diploma/Certificate courses	Nil	1	3	5	10

Successful implementation of the above plan would help to attain following Institutional Goals:

- **Service to students:** Offering seats to more students, with wider range of programs available to choose.
- **Service to industry**: Providing larger number of high quality professionals to industry in areas of their needs.
- **Service to society:** Offering high quality, internationally recognised courses to help students secure good jobs and become entrepreneurs.
- **Sustainability:** Number of seats and industry candidates for short term/on-line courses to significantly contribute towards revenue generation for the Institute.
- **Visibility:** Industry participation in education to enhance visibility of the institute, besides bringing other benefits.

II. Sub Task Force 1.2: Academic Standardization (ASD – STF)

Major objectives:
- Adopt internationally recognised best practices
- Attain global recognition of programs offered

Following activities have been identified to achieve above mentioned objectives:
- National and International accreditation of programs: External audit of all programs
- Anchoring and facilitating NBA and ABET accreditation of programs
- Periodic curriculum revision: Yearly curriculum workshops involving industry
- Implementing flexible credit system for offering wider choice to students
- Quality assurance of existing programs, laboratory upgradation
- Increasing interdisciplinary content, project based learning

Targets for ASD-STF:

Focus area	2017-18	2018-19	2019-20	2020-21	2022-23
Accreditation	NBA 6/8 UG 6/28 PG	NBA 8/8 UG 15/28 PG	NBA 8/8 UG 25/28 PG	ABET 4 UG 4 PG	ABET 8 UG 15 PG
Curriculum Updation	--	All UG programs	All PG programs	All UG programs	All PG programs

Successful implementation of the above plan would help to attain following Institutional Goals:

- **Service to students:** Accredited programs help student getting admission in world's best universities for higher studies, facilitates more exchange programs.
- **Service to industry:** Continuous curriculum updation in consultation with industry, to ensure that graduating students are industry-ready.
- **Transparency:** Accreditation and academic audit are tools to enhance transparency in the academic delivery of courses, that are extremely important for student satisfaction.

III. **Sub Task Force 1.3:** Academic Enhancement (AEN – STF)

Major objectives:
- Capitalise upon international linkages of the Institute for high revenue programs
- Start offering Continuing education opportunity to industry

Following activities have been identified to achieve above mentioned objectives:
- Dual-degree/twinning programs with foreign universities: Curriculum, operational modalities, permissions, promotion
- Off campus programs for industry: Offering short courses and on-line courses to industry professionals who aim to enhance their qualification and/or skills
- Establishing CEP cell for conducting regular CEPs in sectors of demand
- Online courses: Development of MOOCS, SWAYAM courses, incentivising
- International students: Change in admission policy, Promotional activities

Targets for AEN-STF:

Focus area	2017-18	2018-19	2019-20	2020-21	2022-23
Online courses	Nil	Nil	2	4	8
Dual/twin programs with foreign universities	Nil	1	1	2	3
International students	0.037	0.037	0.04	0.045	0.05

Successful implementation of the above plan would help to attain following Institutional Goals:
- **Service to students**: Wider range of opportunities to learn in variety of ways as per their affordability and liking.
- **Service to industry**: Enhance qualification and skills of working professionals without disturbing their regular job.
- **Service to society**: Offering choices to all segments of society to learn and acquire skills
- **Sustainability**: Programs with foreign universities and off-campus programs attract higher revenue, as compared to regular programs. Online programs if chosen by large number of students, world-over, can also fetch significant revenue without much recurring expenditure.
- **Visibility**: International programs and off campus/online programs enhance visibility of Institute through their reach that otherwise is difficult to attain.

Year-wise High Priority items for Academic Task Force

Out of the various activities mentioned above, on the basis of effort to return ratio, and importance in Institutional ranking, following have been identified as high priority action points for the academic task force:

2018-19
- Quality assurance of existing programs as per national standards
- Laboratory upgradation

2019-20
- Industry relevant programs/certificate courses
- Flexible credit system

2020-21
- Quality assurance of existing programs as per international standards (ABET)
- International students

Details of

Task Force-2

RESEARCH TASK FORCE

Lead: Dean-R&C

Task Force 2: Research & Consultancy

Research & Consultancy task force has been divided into four Sub Task Forces, namely:
- Research Task Force (STF-R)
- Consultancy Task Force (STF-C)
- Industry Engagement Task Force (STF-IE)
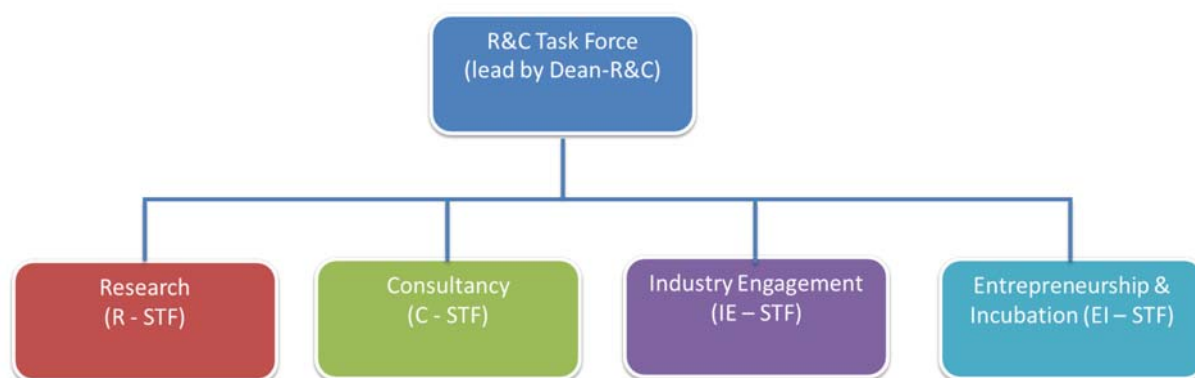- Entrepreneurship and Incubation Task Force (STF-EI)

Figure-5: Structure of Task Force-2

Details of responsibilities and targets of each sub task force are presented below:

I.   Sub Task Force 2.1: Research (R – STF)

Major objectives:
- Increase in funded research
- Increase in high quality publications and patents

Following activities have been identified to achieve above mentioned objectives:
- Enhance the number of research publications, primarily through facilitation in high quality journals
- Enhance externally funded projects: R&C rules reforms/revision
- Introduce Research Professorship
- Increase research citations (per faculty) through installation of awards, offering rewards and incentives
- Smooth implementation of projects: From information, inception, polishing, processing, and winding up of externally funded projects
- Publication facilitation: Technical writing assistance to be provided by the institute.
- IP protection, technology transfer, licensing

Targets:

Focus area	2017-18	2018-19	2019-20	2020-21	2022-23
External funded projects (crore)	42	50	70	100	180
Research citations (per faculty)	30	35	40	45	60
Publications	450	500	550	600	650

Successful implementation of the above plan would help to attain the following Institutional Goals:

- **Service to students**: Funded research projects usually result into creation of funded research positions for Ph.D. students and enhancement of laboratory facilities that can be used by other students as well.
- **Visibility**: High quality publications make a permanent mark on the research horizon, that future researchers refer to if found important. This enhances global visibility of the faculty and Institute.
- **Sustainability**: Funded research fetches money under institute overhead and by creation of lab facilities reduce load on Institute funds for creation of the same. Additionally, technology transfer and patent licensing also contribute towards the same.

II. **Sub Task Force 2.2:** Consultancy promotion (C - STF)

Major objectives:
- Enhancement in institute earning through consultancy services of various types

Following activities have been identified to achieve above mentioned objectives:
- Smooth facilitation of consultancy services
- Development of accredited test labs: Obtain accreditation from National/international bodies, which can be used to provide industry grade testing facility, and offer revenue support
- Upgradation/creation of new research and testing facilities

Targets:

Focus area	2017-18	2018-19	2019-20	2020-21	2022-23
Accredited test labs	Nil	1 (Pilot)	2	3	5
Endowment Chairs	2	4	6	8	14
Centre for Excellence	6	7	8	9	10
Industry sponsored UG/PG seats	Nil	Nil	08	16	20

Successful implementation of the above plan would help to attain following Institutional Goals:
- **Service to industry**: Technical advisory services provided to industry would strengthen industry-academia bonding through collaborative problem solving and development of new products and processes

- **Sustainability**: Fee charged for offering consultancy services would be a significant revenue source for the Institute and additional source of earning to the faculty and staff involved in imparting it, which acts as motivating factor.
- **Visibility**: Professional engagement of faculty with outside world enhances visibility of the Institute, especially in the areas where Institute provides services of unique nature. High quality services imparted to industry fetch good publicity.

III. **Sub Task Force 2.3:** Industry Engagement (IE – STF)

Major objectives:
- Establishing/strengthening tie-ups with industry
- Setting up financial model with industry linkages to benefit industry and institute

Following activities have been identified to achieve above mentioned objectives:
- Exploring areas and opportunities for tie-ups with industry with domain specific industry engagement
- Establishment of Industry sponsored Chairs to support deep engagement in problem solving for industry
- Establishment of Industry sponsored labs to promote theme specific research
- Developing new Centres for Excellence as per industry requirements
- Carve out industry sponsored UG/PG seats for working professionals, with higher fee

Targets:

Focus area	2017-18	2018-19	2019-20	2020-21	2022-23
Industry sponsored labs	Nil	Nil	1	2	4
MoU with industry	18	20	23	28	35

Successful implementation of the above plan would help to attain following Institutional Goals:
- **Service to industry**: Industry sponsored Chair Professors and research centres would dedicatedly work in problem solving for industry as identified by the funding industry
- **Sustainability**: Funding for Chair Professor and Industry Research centre/lab both would bring revenue for the Institute as they should work on self-sustainability mode.
- **Visibility**: Successful industry sponsored lab may set example for others to follow. Partner industry itself would showcase it on different forums with pride.

IV. **Sub Task Force 2.4:** Entrepreneurship & Incubation (EI – STF)

Major objectives:
- Successfully launch start-ups after fostering innovation and incubation
- Promote entrepreneurship among students

Following activities have been identified to achieve above mentioned objectives:

- Encourage incubates to register and work at MIIC
- Start-up facilitation, promotion by providing mentors and facilities
- Promote entrepreneurship through curriculum interventions and training programs
- Establishing tie-up with VCs for supporting incubates
- Showcasing success stories

Targets:

Focus area	2017-18	2018-19	2019-20	2020-21	2022-23
Start ups	21	40	60	80	80

Successful implementation of the above plan would help to attain following Institutional Goals:

- **Service to students**: Students would get support for converting their ideas into business venture.
- **Service to industry**: Budding start-ups and entrepreneurs would support industrial eco-system by adding value to the chain of manufacturing and service, through innovative products and services.
- **Service to society**: New products and solutions to local problems through technological interventions and innovation may solve tricky problems in fields such as medical engineering, IT-enabled services, *etc*.
- **Sustainability**: Institute stake in start-ups rolling out from incubation centre may fetch significant revenue, once these turn into successful businesses.

Year-wise Priorities for Research & Consultancy Task Force

Out of the various activities mentioned above, on the basis of effort to return ratio, and importance in Institutional ranking, following have been identified as high priority action points for the R&C task force:

2018-19
- Facilitating high quality publication
- Smooth implementation of projects

2019-20
- Patents and Licensing
- High Value projects

2020-21
- Industry sponsored/accredited test labs
- New centers for excellence

Details of

Task Force-3

FACULTY AND STAFF TASK FORCE

Lead: Dean-Faculty Welfare

Task Force 3: Faculty & Staff

Faculty and Staff Task Force has been divided into four Sub Task Forces, namely:
- Faculty Development Task Force (STF-RD)
- Visiting Faculty Task Force (STF-VF)
- Staff Development Task Force (STF-SD)
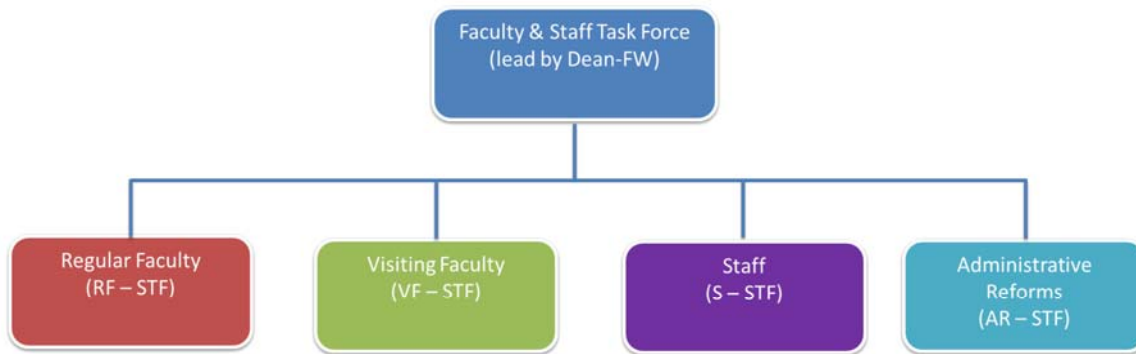- Administrative Reforms Task Force (STF-AR)

Figure-6: Structure of Task Force-3

Details of responsibilities and targets of each sub task force are presented below:

I.   **Sub Task Force 3.1:** Regular Faculty (RF – STF)

Major objectives:
- Engaging, motivating and retaining high quality regular faculty
- Value addition in teaching and research through International faculty, industry professionals as faculty

Following activities have been identified to achieve above mentioned objectives:
- On-going recruitment process for regular faculty as per academic demand: Rolling advertisement/selection process
- Implementing concepts of Research Faculty, Tenure Track Appointment: Prepare modalities/T&C Recruit by search committee as necessary
- Periodic orientation and training of faculty members for enhancing performance
- Rewarding and awarding high achievers/performers: Annual process for promotions, Procedure for self-initiation to be developed, incentives to be launched
- Off campus faculty recruitment, specially at overseas universities
- Early Induction Program: Policy to be developed and practiced to induct bright undergraduate students, with a grooming plan, as future faculty
- Faculty Exchange Programs: Modalities to be developed, identification of opportunities and funding possibilities (e.g. DAAD, SICI, DFID schemes) to be utilised
- Joint appointment with industry R&D units to be given as per expertise and requirement at the institute

- Staff Recruitment: Regular staff recruitment for laboratory support and administration
- Staff Training and Incentivizing: Imparting multiple skills to staff of various sections for flexibility in administrative set up and future progression

Targets:

Focus area	2017-18	2018-19	2019-20	2020-21	2022-23
Regular faculty recruitment	187	250	300	350	450
Rewarding faculty	Overdue	Annual process	Annual process	Annual process	Self initiation
Research Professorship	Nil	2 (pilot)	4	8	16
Early Induction Program	Nil	5	10	15	20
Faculty Exchange program	2	4	8	15	25

Successful implementation of the above plan would help to attain following Institutional Goals:

- **Service to students**: Good faculty to student ratio will enhance quality of teaching and time of teachers given to students
- **Service to industry**: Two way transfer of knowledge with industry will take place through participation of industry professionals in teaching and research
- **Service to society**: Better supporting staff will enhance productivity of organization and prompt services to all stakeholders

II. **Sub Task Force 3.2:** Visiting Faculty (VF – STF)

Major objectives:
- Internationalization of education and research at the Institute with enhanced exposure
- Strengthening of collaborations with partner institutes

Following activities have been identified to achieve above mentioned objectives:
- Visiting faculty from premier universities abroad: Identify-engage-offer, Utilise GIAN, VAJRA funding
- New methods of engaging faculty from Industry: Prepare modalities/T&C MoU with industry Recruitment
- Tenure track appointment for industry persons on sabbatical
- Non-tenure temporary appointment for industry persons

Targets:

Focus area	2017-18	2018-19	2019-20	2020-21	2022-23
International/ Visiting faculty	2	14	30	45	75
Industry sponsored chairs	1	2	5	10	15
Joint appointment with industry	Nil	1 (pilot)	2	4	8
Participation/organising conferences & workshops	>150	>200	>250	>300	>350

Successful implementation of the above plan would help to attain following Institutional Goals:

- **Service to students**: Students will get knowledge and guidance from international experts for higher studies
- **Service to industry**: Solutions to problems for Indian industries can be solved through help and expertise of visiting faculty
- **Sustainability**: Visiting faculty concept creates no or minimal permanent financial liabilities on the institute such as pension, other allowances etc.
- **Visibility**: Visiting faculty acts as ambassadors for the Institute spreading good words about strengths

III. **Sub Task Force 3.3:** Staff (S – STF)

Major objectives:
- Ensuring availability of technicians and supporting staff at all levels for smooth functioning
- Skill development, on-job training and incentives for high performers for enhancement of service quality and accountability

Following activities have been identified to achieve above mentioned objectives:
- Periodic recruitment of staff to make sure smooth induction and progression
- Establishing mechanisms for transparent appraisal and incentives for high quality performers
- Skill Development at all levels for equipping staff with skills required at higher level in hierarchy

Targets:

Focus area	2017-18	2018-19	2019-20	2020-21	2022-23
Skill Development (% of staff)	10	15	25	30	40

Successful implementation of the above plan would help to attain following Institutional Goals:

- **Transparency**: Availability of adequate staff at all levels helps adhering to pre-defined processes and proper documentation of things/decisions, thereby helping transparency and proper record keeping.
- **Sustainability**: Flow of staff from recruitment to progression to retirement is a continuous process and its flow should be maintained to transfer knowledge about rules, procedures to successors. It helps in maintaining consistency, continuity and administrative sustainability.

IV. **Sub Task Force 3.4:** Administrative Reforms (S – STF)

Major objectives:
- Updation and enhancement in administrative procedures as per changing priorities and practices

Following activities have been identified to achieve above mentioned objectives:
- Digitisation of processes and record keeping has become need of the hour. It helps speeding up processes and decision making. ERP implementation is one such step.
- Setting up effective and transparent financial management system, with accountability and adequate autonomy at different levels.
- Change in service rules of faculty and staff to match overall objectives and vision of the Institute

Targets:

Focus area	2017-18	2018-19	2019-20	2020-21	2022-23
Digitisation (%)	40	50	60	70	80
ERP system (% file system)	30	40	50	60	80
Finance Management System (%)	10	20	40	60	80
Information Management System (%)	10	25	40	60	80

Successful implementation of the above plan would help to attain following Institutional Goals:
- **Transparency**: Digitization of administrative processes would enhance transparency as all the cases become traceable at every stage, making people more accountable.
- **Sustainability**: Reforms help the Institute march with the changing best practices with time, help improve employee productivity too.

Year-wise High Priority items for Faculty and Staff Task Force
Out of the various activities mentioned above, on the basis of effort to return ratio, and importance in Institutional ranking, following have been identified as high priority action points for the Faculty and Staff task force:

2018-19
- Faculty recruitment and promotion
- Visiting faculty from abroad

2019-20
- On-going recruitment process for regular faculty as per academic demand
- Rewarding and awarding high achievers/ Performers

2020-21
- Engaging industry persons as faculty
- Administrative and Financial Reforms

Details of

Task Force-4

INFRASTRUCTURE TASK FORCE

Lead: Dean-Planning and Development

Task Force 4: Infrastructure

Infrastructure Task Force has been divided into three Sub Task Forces, namely:
- Academic infrastructure task force (AI-STF)
- Supporting infrastructure task force (SI-STF)
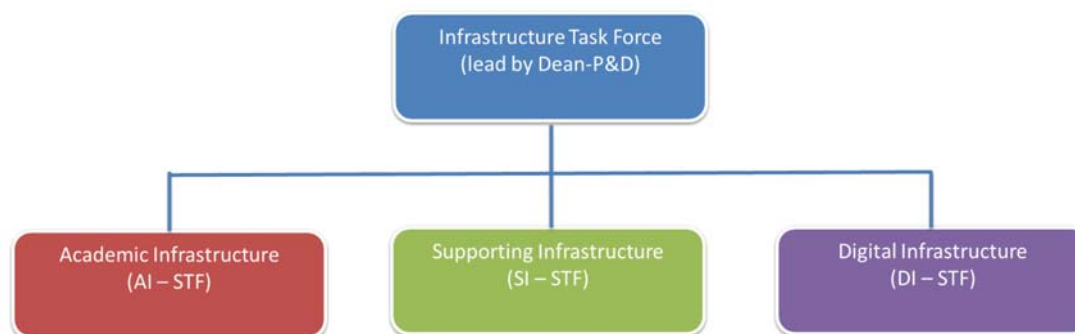- Digital infrastructure task force (DI-STF)

Figure-6: Structure of Task Force-4

Details of responsibilities and targets of each Sub Task Force are presented below:

I.   Sub Task Force 4.1: Academic Infrastructure (AI – STF)

Major objectives:
- Making quality space and infrastructure available to academic and research units for holding lectures, installing and using lab equipment including expansion plans
- Providing high quality facilities to faculty for working efficiently

Following activities have been identified to achieve above mentioned objectives:
- Updation of existing civil, electrical and digital infrastructure for labs
- Creation of space for setting up new labs as per future expansion plans
- Development and upkeep of instruction space
- Making high quality seating facility for faculty and staff

Targets:

Focus area	2017-18	2018-19	2019-20	2020-21	2022-23
Instruction space development: Classrooms, labs	Renovation of 2 labs	Renovation of 4 labs	Renovation of 6 labs	Renovation of 8 labs	Renovation of 10 labs
Faculty and staff seating	Sufficient for 187 faculty	Sufficient for 250 faculty	Sufficient for 300 faculty	Sufficient for 350 faculty	Sufficient for 450 faculty
Infrastructure for academic expansion, new centers/labs	3 new labs	4 new labs	5 new labs	6 new labs	7 new labs

Successful implementation of the above plan would help to attain following Institutional Goals:

- **Service to students**: Updation of teaching and instructions space would provide high quality teaching and learning environment.
- **Service to industry**: Better trained engineers, in state-of-art laboratories, would enhance the quality of engineers produced.
- **Sustainability**: Better infrastructure would attract the best of faculty and students, enabling sustainable revenue.

II.   **Sub Task Force 4.2:** Supporting Infrastructure (SI – STF)

Major objectives:
- Student Housing: Project Planning, budgeting, execution
- Ensuring residential facilities to students
- Ensuring residential facilities for faculty and staff: Service Management System
- Sustainable water and electricity supply: Power supply back up, Energy audit and implementation, Water audit, water conservation
- Campus upkeep and beautification

Following activities have been identified to achieve above mentioned objectives:
- Planning, budgeting and execution of new hostels, faculty and staff accommodation
- Development of energy, water and environment management plans
- Development of service management systems
- Environment impact assessment of all major activities

Targets:

Focus area	2017-18	2018-19	2019-20	2020-21	2022-23
Girls hostels	Under construction	New hostel to be occupied	New hostel to be planned	Under construction	New hostel to be occupied
Boys hostel	Shortage	New hostel to be started	New hostel to be occupied	Expansion of old hostels	New hostels to be started
Power supply/ Energy Sustainability	1 MW solar	1.5 MW solar, energy audit implementation	2MW solar, energy audit, benchmarking	3 MW solar, surpass benchmarks by 20%	4 MW solar
Water supply	Internal supply, 70% waste water recycle	Bisalpur, 100% waste water recycle	Reduce per person water consumption 5%	Reduce per person water consumption 10%	Reduce per person water consumption 15%

Faculty/ staff housing	Under construction	Construction to be completed, Staff housing project	New housing to be started	New housing to be completed	

Successful implementation of the above plan would help to attain following Institutional Goals:

- **Service to students**: Ensuring student housing at the campus would help to attract quality students, which are otherwise restricted due to high cost of living outside the campus.
- **Service to industry**: Quality engineers with rigorous training using round-the-clock available support system, with support from faculty and staff
- **Service to society**: As environmentally conscious citizens, engineers would be more productive for the society in the longer term

III. **Sub Task Force 4.3:** Digital Infrastructure (DI – STF)

Major objectives:
- ERP/MIS
- E-classrooms with multimedia: Digital facilities to be provided
- E-courses development centre with media experts: Digital multimedia centre
- Network infrastructure
- Data Centre, Cloud based services: Continuation updating of e-infrastrucutre

Following activities have been identified to achieve above mentioned objectives:
- Planning, budgeting and execution for digital infrastructure
- Quality engagement with peers, to develop e-courses
- Effective training of stakeholders, to enable maximum utilisation of digital infrastructure
- Continuous updation and management of digital infrastructure

Targets:

Focus area	2017-18	2018-19	2019-20	2020-21	2022-23
E-classrooms	4	10	20	30	50
E-course development	Nil	01	01	upgradation	02
Computer centre	Data Centre	Data centre expansion	Computer centre modernization	Data centre expansion	Computer centre modernization

Successful implementation of the above plan would help to attain following Institutional Goals:

- **Service to students**: Hassle free environment, world class teaching infrastructure, and access to knowledge available worldwide, would enable quality learning
- **Service to industry**: Trained engineers, with expertise on using e-infrastructure, and ability to deliver in a digital world
- **Transparency**: Develop system's ability to cater to a larger number of stakeholders, at a faster pace
- **Visibility**: Quality digital infrastructure would ramp up the institute's capability in terms of knowledge dissemination and connecting to the world

Year-wise Priorities for Infrastructure Task Force

2018-19

- Residential facilities to students
- E Classroom development

2019-20

- On campus facilities such as hospital, shopping
- Sustainable water & electricity supply

2020-21

- Student recreational facilities
- ERP/MIS revision

Details of

Task Force-5

OUTREACH TASK FORCE

Lead: Dean-International Affairs & Institute Relations

Task Force 5: Outreach

Outreach Task Force has been divided into three Sub Task Forces, namely:
- International Affairs Sub-Task Force (IA-STF)
- Alumni Relations Sub-Task Force (AL-STF)
- International Ranking Sub-Task Force (IR-STF)
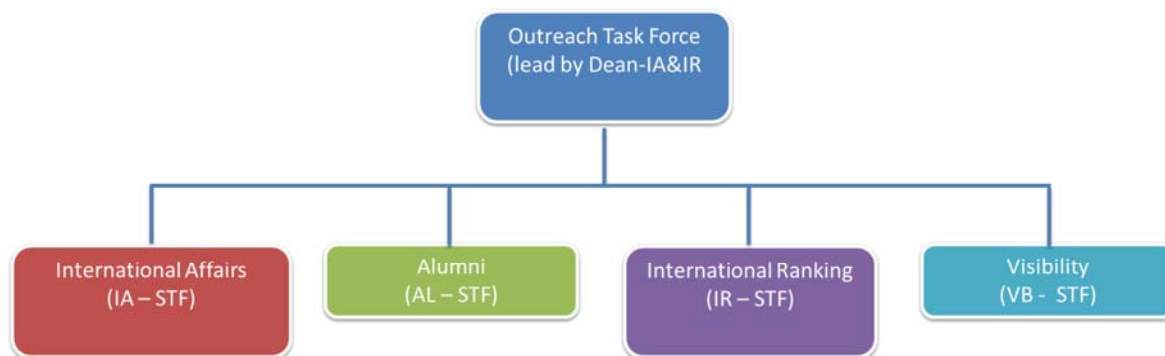- Visibility Sub-Task Force (VB-STF)

Figure-7: Structure of Task Force-5

I. **Sub Task Force 5.1:** International Affairs (IA – STF)

   Major objectives:
   - International Faculty
   - International Universities MoU
   - Faculty and Student Exchange Program

   Following activities have been identified to achieve above mentioned objectives:
   - Engagement with international faculty through various platforms
   - Organising events with international universities
   - Encouraging faculty and student exchange through various support mechanisms

   Targets:

Focus area	2017-18	2018-19	2019-20	2020-21	2022-23
International Faculty	2	14	30	45	75
International Universities MoU	20	23	27	33	40
Faculty and Student Exchange	10	14	20	30	50

Successful implementation of the above plan would help to attain following Institutional Goals:
- **Service to students**: Students get exposure to international faculty and state-of-art knowledge

- **Service to industry**: Engineers with internationally qualified education and exposure to best technical knowledge
- **Sustainability**: Mechanisms would attract bright scholars and faculty, with low long term financial burden
- **Visibility**: Engagement would enhance Institute's visibility across the international platforms

II.   **Sub Task Force 5.2:** Alumni Connect (AL – STF)

Major objectives:
- Endowment
- Alumni Connection: Mechanism to offer special position to alumni for teaching, Overseas alumni chapters, alumni meets to be conducted worldwide
- International & National Alumni Chapters
- Alumni Welfare

Following activities have been identified to achieve above mentioned objectives:
- Developing mechanisms for alumni engagement, at campus and outside the campus
- Developing overseas alumni chapters and alumni meets
- Specific faculty positions for alumni on short term basis in each department

Targets:

Focus area	2017-18	2018-19	2019-20	2020-21	2022-23
Alumni participation in teaching	0	2	4	8	12
Alumni network (International/National)	1/4	2/6	5/10	8/15	12/20
Alumni endowment (Lakhs)	7	15	25	50	100

Successful implementation of the above plan would help to attain following Institutional Goals:
- **Sustainability**: Would attract significant funds through alumni support, to enhance sustainability of the institute

III.   **Sub Task Force 5.3:** Ranking Framework (IR-STF)

Major objectives:
- Higher International Ranking
- Participation in National missions/programs
- Organizing special events/program
- Progress Monitoring of factors impacting

Following activities have been identified to achieve above mentioned objectives:
- Effective mechanism for compilation and dissemination of institute information
- Encouragement to engage in national missions/programs

- Close monitoring mechanism of factors impacting international rankings

Targets:

Focus area	2017-18	2018-19	2019-20	2020-21	2022-23
National Ranking	52	30	20	18	15
Participation in National missions/programs	5	8	12	15	18
Organizing special events/program	2	4	6	8	10

Successful implementation of the above plan would help to attain following Institutional Goals:

- **Service to students**: Higher rankings would attract quality students, and offer them better placements
- **Transparency**: Standing in national and international rankings would offer transparency to stakeholders, in assessing institute's performance
- **Visibility**: Rankings would enhance the visibility among its peers internationally

IV. **Sub Task Force 5.4:** Outreach (VB - STF)

Major objectives:
- Digital Outreach
- To work for enhancement of Institute visibility and branding: R&D showcase, open house
- Documentation of activities and achievements
- Contribution to Professional bodies: Promoting faculty in taking positions in Professional Bodies, Institute chapters, hosting conventions/conferences

Following activities have been identified to achieve above mentioned objectives:
- Establishing PRO/Liaison Office
- Development of publicity material at Institute level: PRO/Liason Office/ Brochure, flyers development/ Branding material
- Development of department level publicity material
- Digital Media Cell: Activity reports on institute website, Portal based services/linkage with parents, industry, Social Media Interactions

Targets:

Focus area	2017-18	2018-19	2019-20	2020-21	2022-23
Documentation and publicity material	1	3	5	7	10
Institution Activity Coverage on web-site in %	20	30	40	50	55
Digital Media (Platform Connections)	0	1000	4000	8000	20000

Public perception events	0	2	3	5	7
Contribution to Professional bodies	5	8	10	15	20

Successful implementation of the above plan would help to attain following Institutional Goals:

- **Service to students**: Provides relevant information to students, on the activities and events
- **Transparency**: Would offer transparency on the activities and performance of the institute
- **Visibility**: Enhance visibility of the institute, within and outside the campus. Offer international visibility, as people seek more information through internet

Year-wise Priorities for Outreach Task Force

2018-19
- Outreach material development
- Alumni Chapters

2019-20
- Website Development/ Digital Media
- PRO/Liaison Office

2020-21
- International ranking
- Enriching endowment funding

Details of

Task Force-6

STUDENT WELFARE TASK FORCE

Lead: Dean-Student Welfare

Task Force 6: Student Welfare

Student Welfare Task Force has been divided into three Sub Task Forces, namely:

- Skills & Placements (SP – STF)
- Extracurricular (EX – STF)
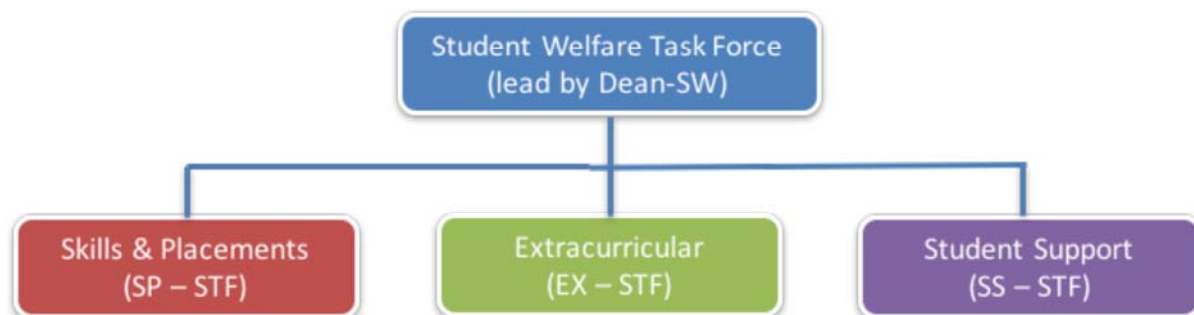- Student Support (SS – STF)

Figure-8: Structure of Task Force-6

I.   **Sub Task Force 6.1:** Skills & Placements (SP – STF)

Major objectives:

- High quality placement: Enhanced quality, higher percentage placements, dream job, overseas placements
- Pre-placement
- Industry internships: Pre-final year offers
- National missions/programs: Participation in missions, programs, events
- Soft skill development: Special Programs/camps for imparting soft skills

Following activities have been identified to achieve above mentioned objectives:

- Enhanced interaction with industry
- Making students industry ready through in-house training
- Orientation of curriculum towards industry requirements
- Soft skills training through industry engagement

Targets:

Focus area	2017-18	2018-19	2019-20	2020-21	2022-23
Placement (%)	85	95	100	100+	100++
National missions/programs	5	7	10	14	20
Soft skill development	20	25	30	35	40
Industrial training/Internship	78	150	300	450	600

Successful implementation of the above plan would help to attain following Institutional Goals:

- **Service to Students**: Develop soft skills, enabling better placement
- **Service to Industry**: Provide industry ready engineers

- **Service to Society**: Provide with quality engineers, with capacity to develop better engineering systems
- **Visibility**: Offer visibility to students and faculty engaging at national/international platforms

II. **Sub Task Force 6.2:** Extracurricular (EX – STF)

Major objectives:
- Student Technical Activities: Student chapters of Professional bodies
- Student Personality Development Activities: Institute student events having wider participation
- Student Extracurricular Physical Activities
- Participation in National missions/programs

Following activities have been identified to achieve above mentioned objectives:
- Development of student chapters on various technical activities
- Organising institute events, to provide wider participation
- Organising extra-curricular activities for the overall development of students

Targets:

Focus area	2017-18	2018-19	2019-20	2020-21	2022-23
Student Chapters	10	15	20	25	30
Flagship events	4	6	8	10	12

Successful implementation of the above plan would help to attain following Institutional Goals:
- **Service to students**: Overall development of students, technically, professionally and personal
- **Visibility**: Offer opportunities to students to enhance visibility while engaging on various platforms

III. **Sub Task Force 6.3:** Student Support (SS – STF)

Major objectives
- Student Orientation
- Student Peer Support Systems
- Student Mental Welfare
- Diversity & Special Needs Program

Following activities have been identified to achieve above mentioned objectives:
- Student exchange programs: Within country and abroad
- Scholarships support: Larger no. of merit-cum-means scholarships, Larger no. of merit scholarships
- Engagement of professional help for student mental welfare

Targets:

Focus area	2017-18	2018-19	2019-20	2020-21	2022-23
Student exchange programs	10	14	20	30	50
Support Scholarships	700	800	900	1000	1200
Academic Scholarships	1500	1550	1600	1650	1700

Successful implementation of the above plan would help to attain following Institutional Goals:

- **Service to students**: Providing comfortable environment for the welfare of the students, and enhancing their productivity through institutional support
- **Service to society**: Engineers with strong mental and professional skills

Year-wise Priorities for Student Welfare Task Force

2018-19
- Placement quality
- Student counselling centre and psychological support

2019-20
- Industry training/ Internship
- International student support centre

2020-21
- Student exchange programs
- Scholarships and support through alumni

Management of Task Forces

1. Board of Governors

2. Director

3. Project Management Committee, Strategic Plan

All six Task Force Chairs would be members of PMC. All issues pertaining to coordination between different TFs would be sorted out in PMC meeting.

- Task Force 1: Academic Task Force (ATF)
- Task Force 2: Research Task Force (RTF)
- Task Force 3: Faculty & Staff Task Force (FTF)
- Task Force 4: Infrastructure Task Force (ITF)
- Task Force 5: Outreach Task Force (OTF)
- Task Force 6: Student Welfare Task Force (STF)

4. Role of Project Management Committee

- To address synergy in Task Forces for cross-cutting activities
- Identify Champions for important activities and assist implementation
- Information flow between Task Forces
- Develop reporting templates
- Collection and compilation of periodic progress of TFs for reporting to Director/BoG
- Review impact of steps taken by different TFs

Progress Review Mechanism

1. **Timeline for review of progress**
   - By the Director: Quarterly
   - By the BoG: Half yearly
   - Open house for sharing progress: Yearly

2. **Immediate future milestones:**
   - Task force notification: 1st October 2018
   - PMC formation: 15th October 2018
   - Activity detailing by each Task Force: 30th October 2018

Malaviya National Institute of Technology Jaipur

Major priorities for year 2018-19

S. No.	Action area/need	TF lead
1	Quality assurance of existing programs as per national standards	AA
2	Laboratory upgradation	AA
3	Faculty recruitment and promotion	FW
4	Visiting faculty from abroad	FW
5	Outreach material development	IR
6	Alumni Chapters	IR
7	Residential facilities to students	P&D
8	E Classroom development	P&D
9	Facilitating high quality publication	R&C
10	Smooth implementation of projects	R&C
11	Placement quality	SW
12	Student counselling center and psychological support	SW

Major priorities for year 2019-20

S. No.	Action area/need	TF lead
1	Industry relevant programs/certificate courses	AA
2	Flexible credit system	AA
3	On-going recruitment process for regular faculty as per academic demand	FW
4	Rewarding and awarding high achievers/ Performers	FW
5	Website Development/ Digital Media	IR
6	PRO/Liaison Office	IR
7	On campus facilities such as hospital, shopping	P&D
8	Sustainable water & electricity supply	P&D
9	Patents and Licensing	R&C
10	High Value projects	R&C
11	Industry training/ Internship	SW
12	International student support centre	SW

Major priorities for year 2020-21

S. No.	Action area/need	TF lead
1	Quality assurance of existing programs as per international standards (ABET)	AA
2	International student	AA
3	Engaging industry persons as faculty	FW
4	Administrative and Financial Reforms	FW
5	International ranking	IR
6	Enriching endowment funding	IR
7	Student recreational facilities	P&D
8	ERP/MIS revision	P&D
9	Industry sponsored/accredited test labs	R&C
10	New Centers for excellence	R&C
11	Student exchange programs	SW
12	Scholarships and support through alumni	SW

Contributions:
- Prof. Udaykumar R. Yaragatti, Director

- Mr. Jai Narain, (I/C) Registrar

- Prof. Jyotirmay Mathur

- Prof. Awadesh Kumar Bhardwaj

- Dr. Rohit Bhakar