



Yearly Status Report - 2019-2020

Part A

Data of the Institution

1. Name of the Institution		M. S. RAMAIAH INSTITUTE OF TECHNOLOGY (AUTONOMOUS)
Name of the head of the Institution		N V R NAIDU
Designation		Principal
Does the Institution function from own campus		Yes
Phone no/Alternate Phone no.		080-23603122
Mobile no.		9972087184
Registered Email		principal@msrit.edu
Alternate Email		nvrnaidu@gmail.com
Address		MSRIT Post, MSR Nagar
City/Town		Bengaluru
State/UT		Karnataka
Pincode		560054

2. Institutional Status					
Autonomous Status (Provide date of Conformant of Autonomous Status)			20-Dec-2007		
Type of Institution			Co-education		
Location			Urban		
Financial Status			Self financed		
Name of the IQAC co-ordinator/Director			Dr. G M Madhu		
Phone no/Alternate Phone no.			08023603122		
Mobile no.			9845381349		
Registered Email			iqac@msrit.edu		
Alternate Email			gmmadhu@msrit.edu		
3. Website Address					
Web-link of the AQAR: (Previous Academic Year)			https://s3.amazonaws.com/naac.msrit.edu/new_downloads/AQAR-2018-2019-latest.pdf		
4. Whether Academic Calendar prepared during the year			Yes		
if yes,whether it is uploaded in the institutional website: Weblink :			https://msrit-bucket.s3-us-west-2.amazonaws.com/Uploads/academic_cal_2019-20.jpg		
5. Accrediation Details					
Cycle	Grade	CGPA	Year of Accrediation	Validity	
				Period From	Period To
2	A+	3.28	2021	01-Mar-2021	28-Feb-2026
6. Date of Establishment of IQAC			01-Oct-2014		
7. Internal Quality Assurance System					
Quality initiatives by IQAC during the year for promoting quality culture					

Item /Title of the quality initiative by IQAC	Date & Duration	Number of participants/ beneficiaries
Submission of AQAR (2018-19)	03-Oct-2019 60	40
5 Day Webinar NBA and NAAC Accrediation Process	04-Jun-2020 4	2100
Outcome Based Education and NBA Accreditation	20-Jan-2020 4	72
IQAC general body meeting	08-Apr-2019 1	15
VTU, LIC visit	23-Jun-2020 1	380
NIRF	19-Dec-2019 1	360
Administrative Audit	16-Dec-2019 1	250
IQAC general body meeting	22-Oct-2019 1	23
IQAC Audit	28-Jan-2020 2	450
IQAC Audit	06-Aug-2019 2	450
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8. Provide the list of Special Status conferred by Central/ State Government-UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.

Institution/Department/Faculty	Scheme	Funding Agency	Year of award with duration	Amount
Dr. Vijaya Kumar B P ISE	Research Promotion Scheme	AICTE	2019 365	9
Dr. Niranjan Murthy Mechanical Engineering	MODROBS	AICTE	2019 365	6.3
Dr. P V Raveendra MBA	ICWA	ICWA	2019 365	2
Dr. B K Sujatha ETE	KFIST	VGST	2019 730	40
Dr. B K Sujatha ETE	MODROBS	AICTE	2019 365	10
Dr. M N Chandra Prabha BT	KFIST	VGST	2020 365	30
Dr. K L Sandhya PHY	KFIST	VGST	2020 365	15
Dr. Aruna Kumara P C	Scheme - GRANT IN AID OF	ARMREB- DRDO	2020 1095	27

Mechanical Engineering	ARMREB			
Dr. Sethu Selvi Sivasubramanian ECE	MODROBS	AICTE	2019 365	7.7
Dr. Kalpana Sharma PHY	KFIST	VGST	2019 365	5
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9. Whether composition of IQAC as per latest NAAC guidelines:	Yes
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Upload latest notification of formation of IQAC	View File
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10. Number of IQAC meetings held during the year :	4
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The minutes of IQAC meeting and compliances to the decisions have been uploaded on the institutional website	Yes
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Upload the minutes of meeting and action taken report	View File
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11. Whether IQAC received funding from any of the funding agency to support its activities during the year?	No
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12. Significant contributions made by IQAC during the current year(maximum five bullets)

• OBE • NPTEL/MOOC Courses • Centers of Excellence • FDPs • Skill Development Programmes

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13. Plan of action chalked out by the IQAC in the beginning of the academic year towards Quality Enhancement and outcome achieved by the end of the academic year
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Plan of Action	Achivements/Outcomes
To organize workshops/FDPs in collaboration with industry.	Most of the departments have organized the workshops/FDPs in collaboration with industry.
To participate in NIRF	Submitted the application and institute Ranked 59th among 100 institution across India.
To conduct at least two international conferences	1) Department of Mechanical, Civil, Chemical, Bio-Technology and IEM organized an international conference during September 2019 2) Department of CSE, MCA and ISE organized an

	international conference during October 2019.
To apply extension/recognition of RD centres and one new RD centre	Application submitted to all the departments. VTU LIC committee visited the institute on 23/06/2020. 18 departments obtained extension/recognition of research center
To prepare for VTU LIC visit	Successfully completed the visit
Centre of Excellence	Established
Application to AISHE	Submitted the application to AISHE on 25/01/2020
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14. Whether AQAR was placed before statutory body ?	Yes
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Name of Statutory Body	Meeting Date
Academic Council	23-Apr-2021

15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning ?	Yes
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Date of Visit	26-Feb-2021
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16. Whether institutional data submitted to AISHE:	Yes
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Year of Submission	2020
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Date of Submission	25-Jan-2020
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17. Does the Institution have Management Information System ?	Yes
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If yes, give a brief description and a list of modules currently operational (maximum 500 words)	<p>Institution has been effectively deployed the Management Information System in the areas shown below:</p> <p>Administration: Grievance Redressal Mechanism Link: http://www.msrit.edugrievance.com/</p> <p>Finance and Accounts: Salary for Faculty and Staff, Income Tax Calculation, Balance Sheet, preparation of cheques and Accounting of all funds received from different organizations.</p> <p>Fees Payment: Students' will pay the all kinds of fees and receipt will be generated Student Admission and</p>
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Support: Student Admission, Registration to Higher semesters, Proctorial process, open elective option and registration. Daily Student Attendance: Faculty will enter the attendance of each student on day to day basis. Parents can view their ward's attendance status and progress at any time anywhere. Class Management: Faculty will schedule, cancel and reschedule the classes. SMS Service: Proctor can send the group SMS to all their respective students and also HOD can send the group SMS to the entire class. CIE Report: Faculty will schedule the test question paper and map the questions to COs, POs and PSOs. After the valuation, marks will be entered to each student and question. The software will calculate the attainment of COs, POs and PSOs and generates the final report for the respective course. Examination System: Internal and semester end exam marks entry, generation of admission tickets, Room allotment, generation of Form A and B. Valuation process, Announce of Results, preparation of Marks/ Grade card.

Part B

CRITERION I – CURRICULAR ASPECTS

1.1 – Curriculum Design and Development

1.1.1 – Programmes for which syllabus revision was carried out during the Academic year

Name of Programme	Programme Code	Programme Specialization	Date of Revision
MBA	MBA	Master of Business Administration	10/06/2020
MCA	MCA	Master of Computer Applications	27/06/2020
BArch	AT	Architecture	30/06/2020
BE	BT	Biotechnology	26/06/2020
BE	CH	Chemical Engineering	20/06/2020
BE	CSE	Computer Science and Engineering	01/07/2020
BE	ISE	Information Science and Engineering	01/05/2020
BE	EEE	Electrical and Electronics	24/06/2020

		Engineering	
BE	ECE	Electronics and Communication Engineering	06/06/2020
BE	EIE	Electronics and Instrumentation Engineering	29/06/2020
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1.1.2 – Programmes/ courses focussed on employability/ entrepreneurship/ skill development during the Academic year

Programme with Code	Programme Specialization	Date of Introduction	Course with Code	Date of Introduction
Mtech	Computer Network Engineering	16/03/2019	Data Analytics Lab(MCNL24) Cloud Computing laboratory(MCNL23)	16/08/2019
BE	Electronics and Communication	23/03/2019	Fields, lines and Waves(EC43) Entrepreneurship and Management (EC54) Mixed mode VLSI (EC61) Internet of Things (EC71) Intellectual Property Rights (EC73) Mixed mode VLSI Laboratory (ECL65) Internet of Things Laboratory (ECL75)	16/08/2019
BArch	Architecture	14/03/2019	Urban drawing (AR703)	16/08/2019
BE	Biotechnology	01/03/2019	Cell and Molecular Biology(BT36) Genetics and Genetics Engineering(BT44) Biophysics and Structural Biology NanoTechnology(BT73) IPR,Bioethics and Safety(BT74) PlantDesign	16/08/2019

			Economics and Management(BT44)	
BE	Chemical Engineering	15/03/2019	Process Equipment Design and Drawing(CH65)	16/08/2019
BE	Civil Engineering	14/03/2019	Building Graphics -II(CVL48)	16/08/2019
BE	Computer Science Engineering	16/03/2019	OOPs lab with Java (CSL37) Python Programming lab(CSL48)	16/08/2019
Mtech	Computer Science Engineering	16/03/2019	Data Analytics Lab(MCSL24) Cloud Computing laboratory(MCSL23)	16/08/2019
Mtech	Digital Electronics & communications	23/03/2019	MEMS and NanoElectronics (MLCE06)	16/08/2019
Mtech	VLSI Design and Embedded System	23/03/2019	MEMS and NanoElectronics (MVEE06) Digital VLSI Testing (MVEE03)	16/08/2019
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1.2 – Academic Flexibility

1.2.1 – New programmes/courses introduced during the Academic year

Programme/Course	Programme Specialization	Dates of Introduction
BE	IEM (Courses-Mechanisms & Machine Design, Operations Process Control lab, Supply chain Management lab, Financial Accounting lab)	16/08/2019
BE	Tele Communication Engg (Course- OOPS Using C ++)	16/08/2019
MCA	MCA (Courses-User Interface and User Experience (UI/UX) Design, Hadoop Eco System,, Deep Learning, Introduction to Big Data Analytics using SPARK, Social Network Analysis)	16/08/2019
BE	ECE(Courses- Fields, Lines and Waves,	16/08/2019

	Entrepreneurship and Management, Mixed mode VLSI, Internet of Things, Intellectual Property Rights)	
BE	EEE (Courses- Electronic Devices and Circuits)	16/08/2019
Mtech	Computer Science (Courses- Data Analytics Lab, Cloud Computing Lab)	16/08/2019
BE	Computer Science (Courses- OOPs Lab with Java,Python Programming Lab)	16/08/2019
BE	Civil Engineering (Course- Building graphics-II)	16/08/2019
BE	Chemical Engineering (Course-Process Equipment Drawing)	16/08/2019
BE	Biotechnology (Courses- NanoTechnology, IPR, Bioethics and Safety, Plant design Economics and Management))	16/08/2019
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1.2.2 – Programmes in which Choice Based Credit System (CBCS)/Elective Course System implemented at the College level during the Academic year.

Name of programmes adopting CBCS	Programme Specialization	Date of implementation of CBCS/Elective Course System
BE	All Branches	01/07/2020
Mtech	All Branches	01/07/2020
MBA	MBA	10/06/2020
MCA	MCA	27/06/2020
BArch	Architecture	30/06/2020
MArch	Landscape Architecture	30/06/2020

1.3 – Curriculum Enrichment

1.3.1 – Value-added courses imparting transferable and life skills offered during the year

Value Added Courses	Date of Introduction	Number of Students Enrolled
Certificate course on Chemical Plant Design Simulation	21/07/2019	10
Blockchain Application Development using Hyperledger	28/01/2019	44
DevOps	21/01/2019	44

Opportunities in Emerging Technologies	15/06/2019	44
AI and Its Applications	21/01/2019	10
Cyber Crime Ethical Hacking	17/06/2019	6
Android Application Development	15/06/2019	7
Java J2EE	15/06/2019	25
Python Programming	15/06/2019	41
Web Application Development	15/06/2019	12
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1.3.2 – Field Projects / Internships under taken during the year

Project/Programme Title	Programme Specialization	No. of students enrolled for Field Projects / Internships
BE	B.E - Chemical Engineering	56
BE	B.E - Architecture	150
BE	B.E - Computer Science and Engineering	121
BE	B.E - Electrical and Electronics Engineering	43
BE	B.E - Electronics and Communication Engineering	70
BE	B.E - Electronics and Instrumentation Engineering	24
BE	B.E - Electronics and Telecommunication Engineering	100
BE	B.E - Industrial Engineering and Management	47
BE	B.E - Information Science and Engineering	32
BE	B.E - Mechanical Engineering	190
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1.4 – Feedback System

1.4.1 – Whether structured feedback received from all the stakeholders.

Students	Yes
Teachers	Yes
Employers	Yes
Alumni	Yes
Parents	No

1.4.2 – How the feedback obtained is being analyzed and utilized for overall development of the institution?
(maximum 500 words)

Feedback Obtained

Students Feedback: Student Feedback is collected for every course at the end of the Semester regarding the course outcomes and curriculum. The departments regularly conducts meeting with class representative and course coordinators of all the semesters and consolidated feedback on each course will be prepared and same is discussed in faculty meeting. The consolidated feedback will be further discussed and deliberated in BOS meeting and any changes in the curriculum will be implemented for the next batch of students. **Teachers feedback:** At the end of the semester, teachers handling the course will give their suggestion about the course indicating whether any topic can be included or it can be removed or the syllabus content could be completed in the stipulated time. This feedback from the teachers will be analyzed and will be implemented depending on the suggestions. **Employers Feedback:** Every year Employers survey will be sent to the employer and their suggestion will be discussed in BOS meetings and changes will be incorporated so that the syllabus content is in par with the industries. The skill training required for the direct recruitment for on job for different industries is collected and same is implemented in various courses so that the Students can be directly put on the job without any training. The basic trainings will be provided during the regular courses and also by value added courses. Employers are requested to send the few employers for industry institute interaction and partial delivery of courses. **Alumni Feedback:** Alumni feedback is collected at the end of every academic year, the recent advances in the courses/curriculum will be taken and the same will be transferred for deliberation in the BOS meeting. The Alumni members are also nominated for BOS. The skill training required such as new Software skills use of open source softwares for curriculum will be discussed and deliberated.

CRITERION II – TEACHING- LEARNING AND EVALUATION

2.1 – Student Enrolment and Profile

2.1.1 – Demand Ratio during the year

Name of the Programme	Programme Specialization	Number of seats available	Number of Application received	Students Enrolled
BE	Mechanical Engineering	180	31223	180
BE	Information Science and Engineering	120	11090	120
BE	Industrial Engineering and Management	60	801	60
BE	Electrical and Electronics Engineering	60	2877	60
BE	Electronics and Instrumentation Engineering	60	1229	60
BE	Electronics and Communication Engineering	120	19032	120

BE	Computer Science and Engineering	120	78765	119
BE	Civil Engineering	120	1899	116
BE	Chemical Engineering	60	1390	60
BE	Biotechnology	60	1019	60
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2.2 – Catering to Student Diversity

2.2.1 – Student - Full time teacher ratio (current year data)

Year	Number of students enrolled in the institution (UG)	Number of students enrolled in the institution (PG)	Number of fulltime teachers available in the institution teaching only UG courses	Number of fulltime teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses
2019	5355	835	236	32	122

2.3 – Teaching - Learning Process

2.3.1 – Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc. (current year data)

Number of Teachers on Roll	Number of teachers using ICT (LMS, e-Resources)	ICT Tools and resources available	Number of ICT enabled Classrooms	Number of smart classrooms	E-resources and techniques used
390	390	12	131	75	16

[View File of ICT Tools and resources](#)

[View File of E-resources and techniques used](#)

2.3.2 – Students mentoring system available in the institution? Give details. (maximum 500 words)

The Proctorial System has been introduced with the main objective of providing supportive care and counsel to students in their academic and personal problems. This system helps the students complete their studies comfortably and successfully. At the core of this system lies the Proctor, a faculty member assigned to a student as an academic advisor. The proctor remains same for the duration of the student's program, thereby allowing his progress to be tracked on a regular basis. The college encourages parents to be in regular contact with the Proctor/Chief Proctor/HOD/Principal. Objectives • To inspire a healthy relationship between the teacher and student. • To eliminate any indiscipline among the students. • To improve the overall academic performance in the Examination. • To give students a measure of selfconfidence. Functions of the Proctor Every teaching department implements the proctorial process through its faculty all the faculty members are designated as proctors. The Proctor acts as a local guardian to solve the academic and administrative problems of his wards. The Proctor closely monitors the progress of students under his/her care and helps them in overcoming their problems. The Proctor assists in academic and overall development of the student under his charge. The Proctor conducts regular meetings with Students and, if required, parents. Proctorial Process The proctor maintains a Student Information Record (SIR) for each of his/her wards which gives all the details of the students, in terms of course registration/course dropping/withdrawn/re-registration etc. In addition to details of proctorstudent meetings held from time to time, SIR also gives the details of the performance of the candidate in the semester end examination. Provision has been made to send the progress reports of each student to his/her parents/guardians furnishing the details of attendance, class marks, examination results, etc. These reports are sent twice in a semester (at the end of 45 days 90 days from the starting of the semester) to the parent / guardian of each student. The proctorial process is made more effective by web enabling the SIS (Student Information System) by the Contineo esutra software. Students are allowed to register the core subjects, Elective subjects, Practical, open elective subjects etc. through the SIS. Faculty members enter attendance and CIE marks in the SIS

regularly. Each student and parent is assigned with a Login ID and password, which enables them to view the status of attendance, CIE marks, proctor notes, rolledout timetable, exam history, fee details and academic events regularly. The Chief Proctor regularly conducts scheduled meetings with the deputy chief proctors, HODs and Principal on the Proctorial process. The attendance and CIE Marks entered by each faculty member on the SIS is constantly monitored in the Chief Proctor's Office.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor : Mentee Ratio
6270	390	1:16

2.4 – Teacher Profile and Quality

2.4.1 – Number of full time teachers appointed during the year

No. of sanctioned positions	No. of filled positions	Vacant positions	Positions filled during the current year	No. of faculty with Ph.D
319	390	Nil	33	228

2.4.2 – Honours and recognition received by teachers (received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the year)

Year of Award	Name of full time teachers receiving awards from state level, national level, international level	Designation	Name of the award, fellowship, received from Government or recognized bodies
2020	Dr. S Rajarejeswari	Associate Professor	Samsung PRISM Awards
2020	Yindumathi K M	Associate Professor	Certificate for the Best Presentation Award
2020	Dr. Shilpa S Chaudhari	Associate Professor	Certificate for the Best Presentation Award
2020	Dr. D Evangelin Geetha	Associate Professor	Lifetime Achievement Award
2020	Yindumathi.K.M Dr.Shilpa S Chaudhari	Associate Professor	Certificate for the Best Presentation Award
2020	Sini Anna Alex	Assistant Professor	RULA Reserch Ratna Award
2020	Dr. Bindu S	Professor	Best project of the year award for Guide
2020	Dr Nagaraju Kottam	Associate Professor	Best Project of the Year
2019	Dr. K.R.V. Subramanian	Professor	Outstanding Reviewer Awards, Recognized as an Outstanding Reviewer for Materials Research Express in 2019
2020	Dr. Shobha K R	Associate Professor	IEEE Branch Counselor award

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2.5 – Evaluation Process and Reforms

2.5.1 – Number of days from the date of semester-end/ year- end examination till the declaration of results during the year

Programme Name	Programme Code	Semester/ year	Last date of the last semester-end/ year-end examination	Date of declaration of results of semester-end/ year- end examination
BE	CV	1	11/01/2020	21/01/2020
BE	ME	1	11/01/2020	21/01/2020
BE	EEE	1	11/01/2020	21/01/2020
BE	EC	1	11/01/2020	21/01/2020
BE	CSE	1	11/01/2020	21/01/2020
BE	CH	1	11/01/2020	21/01/2020
BE	IEM	1	11/01/2020	21/01/2020
BE	ISE	1	11/01/2020	21/01/2020
BE	EIE	1	11/01/2020	21/01/2020
BE	TE	1	11/01/2020	21/01/2020

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2.5.2 – Average percentage of Student complaints/grievances about evaluation against total number appeared in the examinations during the year

Number of complaints or grievances about evaluation	Total number of students appeared in the examination	Percentage
14	6178	0.22

2.6 – Student Performance and Learning Outcomes

2.6.1 – Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution (to provide the weblink)

http://www.msrit-igac.com/Syllabus_19-20.html

2.6.2 – Pass percentage of students

Programme Code	Programme Name	Programme Specialization	Number of students appeared in the final year examination	Number of students passed in final year examination	Pass Percentage
AT	BArch	Architecture	75	73	97.33
LA	MArch	Architecture	19	19	100
BT	BE	BioTechnology	47	46	97.87
BBT	Mtech	BioTechnology	10	10	100
CH	BE	Chemical Engineering	59	57	96.61
CV	BE	Civil	123	119	96.75

		Engineering			
CSE	BE	Computer Science and Engineering	160	154	96.25
CSE	Mtech	Computer Science and Engineering	20	20	100
CNE	Mtech	Computer Network Engineering	12	12	100
EE	BE	Electrical and Electronics Engineering	71	71	100
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2.7 – Student Satisfaction Survey

2.7.1 – Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design the questionnaire) (results and details be provided as weblink)

<https://msrit-bucket.s3.us-west-2.amazonaws.com/Uploads/Satisfaction+Survey+2019-20.pdf>

CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

3.1 – Promotion of Research and Facilities

3.1.1 – The institution provides seed money to its teachers for research

Yes
Name of the teacher getting seed money
Dr. P Murali Krishna Dr. Suma K V Dr. Santosh I G Dr. Jayalakshmi D S
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3.1.2 – Teachers awarded National/International fellowship for advanced studies/ research during the year

Type	Name of the teacher awarded the fellowship	Name of the award	Date of award	Awarding agency
International	Nil	Nil	Nil	Nil
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3.2 – Resource Mobilization for Research

3.2.1 – Research funds sanctioned and received from various agencies, industry and other organisations

Nature of the Project	Duration	Name of the funding agency	Total grant sanctioned	Amount received during the year
Major Projects	365	AICTE	769000	769000
Major	365	VGST	3000000	1500000

Projects				
Major Projects	365	VGST	500000	500000
Major Projects	365	AICTE	1000000	1000000
Major Projects	730	VGST	4000000	4000000
Major Projects	365	Science and Engineering Research Board (SERB)	1830000	1830000
Major Projects	365	AICTE	631200	631200
Major Projects	365	AICTE	900000	900000
Major Projects	365	Saroj R Dusad	1453500	1453500
Major Projects	365	MSRITAA	70000	70000
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3.2.2 – Number of ongoing research projects per teacher funded by government and non-government agencies during the years

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3.3 – Innovation Ecosystem

3.3.1 – Workshops/Seminars Conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the year

Title of workshop/seminar	Name of the Dept.	Date
National Seminar on Green Economy And Sustainable Development: Challenges And Issues	Management Studies (MBA)	17/06/2019
Workshop on Regional Seminar on Commodity Derivatives	Management Studies (MBA)	03/06/2019
Workshop on Digital Marketing	Management Studies (MBA)	21/09/2019
Management Fest VISHESH-19	Management Studies (MBA)	08/11/2019
National Conference on New Directions in Indian Foreign Policy People Politics Places and Economic Power	Management Studies (MBA)	04/01/2020
IEEE Women in Engineering WIE TECHNODIUM - Accelerating Young Minds towards Technology Leadership	Computer Science and Engineering	06/03/2020

Workshop on Plant and Equipment Design	BioTechnology	24/07/2020
Demystify Design Thinking in Multidisciplinary Engineering :IT Approaches	Information Science and Engineering	27/07/2020
Big Data Management: An End-to-End Perspective	Information Science and Engineering	15/06/2020
Scope and significance of materials science for industry-academia collaboration (SSMSIAC-2019)	Physics	29/07/2020
International Conference on Advanced Materials Science and Applications (Online)(ICAMSA-2020).	Physics	03/09/2020
TOOLS AND TECHNIQUES FOR DATA ANALYSIS IN ACADEMIC RESEARCH	Mechanical Engineering	20/07/2019
Overview of career domains in VLSI discussed with a strong focus on Front end verification of complex SOC	Electronics and Telecommunication Engineering	14/12/2019
One week Workshop on"5G Communication Networks and its Future Perspective"	Electronics and Telecommunication Engineering	06/01/2020
Hands-on session on Prior Art Search	Medical Electronics	06/07/2019
2nd International Conference on Recent Innovative Trends in Computer Science and Applications" (ICRITCSA-2019)	Master of Computer Applications	25/10/2019
Faculty Development Programme on "Industrial Disruptions and Management Education"	Management Studies (MBA)	29/07/2019
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3.3.2 – Awards for Innovation won by Institution/Teachers/Research scholars/Students during the year

Title of the innovation	Name of Awardee	Awarding Agency	Date of award	Category
First prize Winners of the Project presentation contest in	Niraj Agarwalla (TCE), Amandeep Singh (TCE), Saurav Mohta	IEEE UVCE, Bangalore	03/06/2019	Student

"Kagada 2019" conductd by IEEE UVCE on 21st October 2019 and were awarded a cash prize of Rs 4,000	(TCE), Aditya Anand			
Moderator of Gujarats first of its kind UN 75 Global Peace Intergeneration al Dialogue	Hemanth Kumar J (1MS17ME070)	Gujarats first of its kind UN 75 Global Peace In tergenerational Dialogue	11/05/2020	Student
1st Runner up	TEAM TECHNOPHILIA (3) Present Captain Adithyaa DK (1MS17ME009)	V-Guard Big Idea Tech Design Contest 2020	10/02/2020	Student
TEAM CONCEPT4 selected for the 27th annual NASA's Human Exploration Rover Challenge-2021	TEAM CONCEPT 4 (6) Present Captain Rishi Singh (1MS18ME141)	NASA Human Exploration Rover Challenge	06/01/2020	Student
Team Placed 8th Overall, Placed 4th in presentation	TEAM QUATLAS (8) Former Captain Rahul Deodhar (1MS16ME114) Present Captain Anubhav Vishwakarma (1MS18ME199)	SAE Aero Design West 2020 Virtual-USA	04/05/2020	Student
Team has won best acceleration in electric category	TEAM VOLANTE (42) Former Captain NEELESH SARAN (1MS16ME060) Present Captain B J DEVI PRASAD (1MS17ME037)	ISIE INDIA	15/04/2020	Student
13th Overall (Combustion Class)	TEAM VELOCITA (23) Present Captain K Keerthi Venkat Pranay (1MS17ME074)	Curiosum tech Pvt Ltd	20/03/2020	Student
Overall Champions of 5th Formula Green Competition	TEAM STIER RACING (25) Former Captain Pranav Kudige (1MS16ME100)	INDIAN SOCIETY OF NEW ERA ENGINEERS-Formula Green 2020	04/03/2020	Student

2020.	Present Captain Hassan Sadeed Ali (1MS17ME067)			
NEC Travel Hack	Hemant Joshi, VR Karthik, Vikas N S, Biswajit Mohanty	NEC CORPORATION	25/08/2019	Student
Certificate of Recognition RUAS Innovation Challenge 2020	Hemant Kumar Jawahar	Ramaiah University of Applied Sciences Innovation Centre	01/12/2020	Faculty
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3.3.3 – No. of Incubation centre created, start-ups incubated on campus during the year

Incubation Center	Name	Sponsored By	Name of the Start-up	Nature of Start-up	Date of Commencement
Nil	Nil	Nil	Nil	Nil	Nil
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3.4 – Research Publications and Awards

3.4.1 – Ph. Ds awarded during the year

Name of the Department	Number of PhD's Awarded
Mathematics	6
Mechanical Engineering	1
Medical Electronics	1
Chemistry	6
BioTechnology	1
Computer Science Engineering	1
Electrical Electronics Engineering	3
Electronics and Instrumentation Engineering	2
Electronics and Telecommunication Engineering	1
Information Science and Engineering	9
Industrial Engineering and Management	2

3.4.2 – Research Publications in the Journals notified on UGC website during the year

Type	Department	Number of Publication	Average Impact Factor (if any)
International	Chemical Engineering	17	1.80
International	Medical Electronics	16	1.20
International	Information	78	0.22

	Science and Engineering		
International	Computer Science and Engineering	78	0.25
International	Electrical and Electronics Engineering	11	0.28
International	Electronics and Telecommunication Engineering	18	0.21
International	Biotechnology	32	1.10
International	Electronics and Communication Engineering	49	0.90
International	Civil Engineering	25	0.23
International	Management Studies	25	0.16
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3.4.3 – Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year

Department	Number of Publication
Chemical Engineering	3
Civil Engineering	26
Information Science and Engineering	11
Master Of Computer Applications (MCA)	12
Management Studies (MBA)	14
Mechanical Engineering	26
Electronics Communication Engineering	16
Computer Science Engineering	36
Industrial Engineering Management	13
Electronics Telecommunication Engineering	20
View File	

3.4.4 – Patents published/awarded during the year

Patent Details	Patent status	Patent Number	Date of Award
Development of car bumper material utilizing sugarcane nanocellulose, dry leaves fiber, glass fiber and al-slip hybrid polymer composites	Published	201941027153	02/08/2019
IOTbased Soil Fertilization Test	Published	202011041858	30/08/2019

Mobile, Small Size Renewable Energy Based Power Generating System Useful for Remote Areas	Published	201911022986	26/06/2019
Plants Dry Stem Waste Nano Fiber Reinforced Polymer Composites	Published	201941008534	20/06/2020
Signal Processing Methods for Multicarrier Radar and Communication Systems	Published	201841011045	27/09/2019
Secure direct messaging and health information exchange (HIE) using blockchain technology	Published	202041021694	05/06/2020
LOT Based Security System and Method for Smart Agriculture	Published	201941054569	03/01/2020
IOT based women security system and method thereof	Published	201941054402	03/01/2020
Computer Implemented Method for Generating Notification During Call Without Using Internet in Wireless Communication	Published	201911047977	24/11/2019
Secure Real Time Status notification Bases Dynamic Messaging Method Using Inbuilt Message Tool without Using Internet	Published	201911045703	29/11/2019

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3.4.5 – Bibliometrics of the publications during the last academic year based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index

Title of the Paper	Name of Author	Title of journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self citation
BSA binding	Yallur B.C.,	Spectrochimica	2019	4	M S Ramaiah	Nil

and antibacterial studies of newly synthesized 5,6-Dihydroimidazo[2,1-b]thiazole-2-carbaldehyde	Katrahalli U., Krishna P.M., Hadagali M.D.	Acta - Part A: Molecular and Biomolecular Spectroscopy			Institute of Technology, Bengaluru Karnataka, India	
BSA interaction and DNA cleavage studies of anti-bacterial benzothiazol-2-yl-malonaldehyde	Katrahalli U., Chanabasappa Yallur B., Manjunatha D.H., Krishna P.M.	Journal of Molecular Structure	2019	4	M S Ramaiah Institute of Technology, Bengaluru Karnataka, India	Nil
Photoluminescence and -ray induced thermoluminescence investigation of phase pure cerium doped yttrium silicate nanophosphors	Dhanalakshmi K., Reddy A.J., Parashuram L.	Asian Journal of Chemistry	2019	1	M S Ramaiah Institute of Technology, Bengaluru Karnataka, India	Nil
Health advisory system using IoT technology	Asish Vardhan K., Thirupathi Rao N., Naga Mallik Raj S., Sudeepthi G., Divya, Bhattacharyya D., Kim T.-H.	International Journal of Recent Technology and Engineering	2019	4	M S Ramaiah Institute of Technology, Bengaluru Karnataka, India	Nil
Efficient implementation of refund process in online	Niranjan amurthy M., Nigam B., Niveditha N.M., Naresh E.	International Journal of Recent Technology and Engineering	2019	1	M S Ramaiah Institute of Technology, Bengaluru Karnataka,	Nil

shopping industry internal tool-oms					India	
Predilection decoded: Web based spam detection and review analysis for online portals	Jawaid A., Dev S., Sharma R., Veena G.S.	International Journal of Recent Technology and Engineering	2019	1	M S Ramaiah Institute of Technology, Bengaluru Karnataka, India	Nil
Prediction of liver disease using Rprop, SAG and CNN	Belavigi D.H., Veena G.S., Harekal D.	International Journal of Innovative Technology and Exploring Engineering	2019	1	M S Ramaiah Institute of Technology, Bengaluru Karnataka, India	Nil
Identification of essential proteins in yeast using mean weighted average and recursive feature elimination	Sekhar S.R.M., Matt S.G., Manvi S.S., Gopalalyengar S.K.	Recent Patents on Computer Science	2019	1	M S Ramaiah Institute of Technology, Bengaluru Karnataka, India	Nil
Investigation on the mechanical properties of PLA its composite fabricated through advanced fusion plastic modelling	Christiyan K.G.J., Chandrasekhar U., Venkateswarlu K.	Journal of Mechanical Engineering Research and Developments	2019	1	M S Ramaiah Institute of Technology, Bengaluru Karnataka, India	Nil
3D rotating flow of casson fluid over an elongated surface	Reddy M.G., Dinesh P.A., Basavaraj	Journal of Nanofluids	2019	1	M S Ramaiah Institute of Technology, Bengaluru Karnataka, India	Nil

with thermophoresis and brownian moment: Buongiorno model

[View File](#)

3.4.6 – h-Index of the Institutional Publications during the year. (based on Scopus/ Web of science)

Title of the Paper	Name of Author	Title of journal	Year of publication	h-index	Number of citations excluding self citation	Institutional affiliation as mentioned in the publication
Investigation on the mechanical properties of PLA its composite fabricated through advanced fusion plastic modelling	Christiyan K.G.J., Chandrasekhar U., Venkateswarlu K.	Journal of Mechanical Engineering Research and Developments	2019	14	1	Mechanical Engineering, M S Ramaiah Institute of Technology, Bengaluru Karnataka, India
Alcohol extract of wattakaka volubilis (L.F) stapf root inhibits aldose reductase to prevent diabetes associated cataract formation in rats	Hajira Banu H., Murali A.	Indian Journal of Pharmaceutical Education and Research	2019	19	Nil	M S Ramaiah Institute of Technology, Bengaluru Karnataka, India
An experimental investigation of electrorheological fluid damper recoil system used in heavy duty application	Patil S.R., Krishna S., Gawade S.S., Desavale R.G.	ASME International Mechanical Engineering Congress and Exposition, Proceedings (IMECE)	2019	4	Nil	M S Ramaiah Institute of Technology, Bengaluru Karnataka, India
	Naresh	Journal	2019	52	Nil	Informat

Challenges and issues in test process management	E., Kumar B.P.V., Niranjanamurthy M., Nigam B.	of Computational and Theoretical Nanoscience				ion Science and Engineering, M S Ramaiah Institute of Technology, Bengaluru Karnataka, India
An emphasis of digital wallets for E-commerce transactions	Raghavendra R., Niranjanamurthy M., Nachappa M.N., Shalini K.B.	Journal of Computational and Theoretical Nanoscience	2019	52	Nil	Mechanical Engineering, M S Ramaiah Institute of Technology, Bengaluru Karnataka, India
Molecular docking studies of some novel furan derivatives as potent inhibitors of Staphylococcus aureus	Jays J, Mohan S, Saravanan J	International Journal of Pharmaceutical Research	2019	30	Nil	Electronics and Communication Engineering, M S Ramaiah Institute of Technology, Bengaluru Karnataka, India
The Monte Carlo simulation of grain growth in polycrystalline material using Potts Q-state model-a perspective	Rajendra P., Phaneesh K.R.	AIP Conference Proceedings	2019	75	Nil	Mechanical Engineering, M S Ramaiah Institute of Technology, Bengaluru Karnataka, India
Comparative study of mechanical behavior of silicon carbide filled and	Kulkarni S.D., Chethan S.	AIP Conference Proceedings	2019	75	Nil	M S Ramaiah Institute of Technology, Bengaluru Karnataka, India

boron carbide filled glass fiber reinforced vinyl ester composites						
Effect of carboxyl graphene interface in glass fiber reinforced epoxy nano composites	Manjunatha G., George R., Nagesh S.N.	AIP Conference Proceedings	2019	75	Nill	Mechanical Engineering, M S Ramaiah Institute of Technology, Bengaluru Karnataka, India
3D rotating flow of casson fluid over an elongated surface with thermophoresis and brownian moment: Buongiorno model	Reddy M.G., Dinesh P.A., Basavaraj	Journal of Nanofluids	2019	17	1	Mathematics, M S Ramaiah Institute of Technology, Bengaluru Karnataka, India
View File						

3.4.7 – Faculty participation in Seminars/Conferences and Symposia during the year

Number of Faculty	International	National	State	Local
Attended/Seminars/Workshops	220	176	120	90
Presented papers	196	33	Nill	Nill
Resource persons	6	65	40	190

[View File](#)

3.5 – Consultancy

3.5.1 – Revenue generated from Consultancy during the year

Name of the Consultan(s) department	Name of consultancy project	Consulting/Sponsoring Agency	Revenue generated (amount in rupees)
Dr. Swetha Amit	Design of RF Filters, Log-periodic antenna at	TechniLabs Instruments	10000

	C-band		
Chemical Engineering and Civil Engineering	Safe Way Mineral Water	Design and Construction	5428000
Dr. Shilpa Chaudhari, Aparna R	Drug Discovey Platform	The University of Trans-Disciplinary Health Sciences and Technology	50000
Dr Vijaya kumar B P	Development of an app for handling and managing the Heart Rescue India	Indian Council Of Medical Research (ICMR) Indian Council Of Medical Research (ICMR)	45000
Computer Science Engineering	Software Development to Integrate Stake Holders (Customer Management)	Aditya Systems	1593000
Civil Engineering	Geotechnical Studies and Structural Analysis	Bhagirath Construction Co	5310000
Dr P Murali Krishna	Environmental friendly coatings: To replace chrome based conversion coatings with chrome free coatings	Boeing	1243130
Dr Vijaya kumar B P	Full-stack development for TechMachinery Labs	TechMachinery Labs	75000
Mohan Kumar	IT Solutions to MEP Design work and Evaluation	BPSS MEP Consultancy Services	75000
Dr. Swetha Amit	Utilization of Fabrication Laboratory for testing Antennas	Adichunchanagiri Institute of Technology, Chikmagalur	20000
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3.5.2 – Revenue generated from Corporate Training by the institution during the year

Name of the Consultan(s) department	Title of the programme	Agency seeking / training	Revenue generated (amount in rupees)	Number of trainees
Computer Science and Engineering	PG Diploma in Big Data Analytics and Artificial Intelligence	IBM	900000	17
Chemical Engineering	Chemical Plant Design and Simulation	BMSIT, IISSE, Desmet Ballestra, Adarsh	140000	14

Specialty
Chemicals,
CIPLA, CUROFINS

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3.6 – Extension Activities

3.6.1 – Number of extension and outreach programmes conducted in collaboration with industry, community and Non- Government Organisations through NSS/NCC/Red cross/Youth Red Cross (YRC) etc., during the year

Title of the activities	Organising unit/agency/ collaborating agency	Number of teachers participated in such activities	Number of students participated in such activities
Computer Awareness Workshop For School Children	M.S. Ramaiah Institute of Technology (WIE)	20	100
Swachh Bharat	Government of India	2	180
Blood Donation Camp	M.S. Ramaiah Institute of Technology (NSS Unit)	5	1089
Yoga Day	M.S. Ramaiah Institute of Technology (NSS Unit)	5	600
16th ANNUAL SPECIAL CAMP	M.S. Ramaiah Institute of Technology (NSS Unit)	5	150
SEEING VOICES	M.S. Ramaiah Institute of Technology (NSS Unit)	5	95
FACULTY NSS ORPHANGE VIST	M.S. Ramaiah Institute of Technology (NSS Unit)	5	70
Orphanage and old age home visit	M.S. Ramaiah Institute of Technology (NSS Unit)	5	140
SEAT for Rural India	M.S. Ramaiah Institute of Technology (LSIKC)	8	10
Strategies for Sustainable Rural Development	M.S. Ramaiah Institute of Technology (LSIKC)	10	15

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3.6.2 – Awards and recognition received for extension activities from Government and other recognized bodies during the year

Name of the activity	Award/Recognition	Awarding Bodies	Number of students Benefited
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Nil	Nil	Nil	Nil
No file uploaded.			

3.6.3 – Students participating in extension activities with Government Organisations, Non-Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year

Name of the scheme	Organising unit/Agency/collaborating agency	Name of the activity	Number of teachers participated in such activities	Number of students participated in such activities
Strategies for Sustainable Rural Development	M.S. Ramaiah Institute of Technology (LSIKC)	Strategies for Sustainable Rural Development	10	15
SEAT for Rural India	M.S. Ramaiah Institute of Technology (LSIKC)	SEAT for Rural India	8	10
Computer Awareness Workshop For School Children	M.S. Ramaiah Institute of Technology (WIE)	Computer Awareness Workshop For School Children	20	100
Orphanage and old age home visit	M.S. Ramaiah Institute of Technology (NSS Unit)	Orphanage and old age home visit	5	140
FACULTY NSS ORPHANGE VIST	M.S. Ramaiah Institute of Technology (NSS Unit)	FACULTY NSS ORPHANGE VIST	5	70
SEEING VOICES	M.S. Ramaiah Institute of Technology (NSS Unit)	SEEING VOICES	5	95
16th ANNUAL SPECIAL CAMP	M.S. Ramaiah Institute of Technology (NSS Unit)	16th ANNUAL SPECIAL CAMP	5	150
Yoga Day	M.S. Ramaiah Institute of Technology (NSS Unit)	Yoga Day	5	1089
Swachh Bharat	Government of India	Swachh Bharat	2	180
Blood Donation Camp	M.S. Ramaiah Institute of Technology (NSS Unit)	Blood Donation Camp	5	1089
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3.7 – Collaborations

3.7.1 – Number of Collaborative activities for research, faculty exchange, student exchange during the year

Nature of activity	Participant	Source of financial support	Duration
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Consortium Project	4	Department of Science and Technology	1095
Internship	4	Kloc Technologies Pvt Ltd	180
Internship	5	Mobility SoftTech	180
Internship	2	Syrow Pvt Ltd	180
Internship	6	Huawei Technologies India Pvt Ltd	180
View File			

3.7.2 – Linkages with institutions/industries for internship, on-the- job training, project work, sharing of research facilities etc. during the year

Nature of linkage	Title of the linkage	Name of the partnering institution/ industry /research lab with contact details	Duration From	Duration To	Participant
Internship	Linkage with Industries	Godrej and Boyce Mfg Co Ltd	04/07/2019	03/08/2019	Vedansh Tora
Internship	Linkage with Industries	Toyota Kirloskar Auto Parts Pvt Ltd Bidadi	01/07/2019	03/08/2019	Varun Baptist
Internship	Linkage with Industries	Ford India Private Limited	08/07/2019	23/08/2019	V Adithya
Internship	Linkage with Industries	DANA FAIRFIELD ATLAS LTD	02/07/2019	02/08/2019	Tejas S Deshpande
Internship	Linkage with Industries	Kohler Power India Private Limited	01/07/2019	08/08/2019	Swaraj M Rao
Internship	Linkage with Industries	FENWICK AND RAVI	17/06/2019	19/07/2019	Suraj Kiron Nair
Internship	Linkage with Industries	FARMLAND RAINWATER HARVESTING SYSTEMS	01/07/2019	03/08/2019	Veeresh Gowda C
Internship	Linkage with Industries	Bharat Electronics Ltd Bengaluru	17/07/2019	14/08/2019	Vinay N
Internship	Linkage with	TRIVENI AERONAUTICS	26/06/2019	10/08/2020	Rashid Ahman

	Industries	PRIVATE LIMITED			
Internship	Linkage with Industries	Ace Multi Axes Systems Limited	24/06/2019	25/07/2019	Anagha Bharadwaj
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3.7.3 – MoUs signed with institutions of national, international importance, other institutions, industries, corporate houses etc. during the year

Organisation	Date of MoU signed	Purpose/Activities	Number of students/teachers participated under MoUs
Green Sense Works Pvt Ltd	19/12/2019	Research and Development	15
LeeP eDrive Pvt Ltd	15/09/2019	Research and Development	70
University of Agriculture Science GKVK	11/03/2020	Research and Development	20
M/S Image Labels Pvt Ltd	30/04/2020	Incubation and Collaborative Research	5
Sesovera Tech Pvt Ltd	25/02/2020	Research and Development	11
University of Illinois	14/08/2019	Higher Studies Internship Programme	8
University of Illinois	14/08/2019	Higher Studies Degree Programme	15
Leotechsa Robotics	17/12/2019	Research and Development	6
AKOI	30/04/2019	Social Media Management and Marketing Plan	40
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CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES

4.1 – Physical Facilities

4.1.1 – Budget allocation, excluding salary for infrastructure augmentation during the year

Budget allocated for infrastructure augmentation	Budget utilized for infrastructure development
360602371	321966402

4.1.2 – Details of augmentation in infrastructure facilities during the year

Facilities	Existing or Newly Added
Class rooms	Existing
Laboratories	Newly Added
Seminar Halls	Existing
Classrooms with LCD facilities	Existing

Seminar halls with ICT facilities	Existing
Video Centre	Existing
Value of the equipment purchased during the year (rs. in lakhs)	Newly Added
Number of important equipments purchased (Greater than 1-0 lakh) during the current year	Newly Added
Classrooms with Wi-Fi OR LAN	Existing
Campus Area	Existing
View File	

4.2 – Library as a Learning Resource

4.2.1 – Library is automated {Integrated Library Management System (ILMS)}

Name of the ILMS software	Nature of automation (fully or partially)	Version	Year of automation
LIBSYS	Fully	10 (Rel 1.0)	2007

4.2.2 – Library Services

Library Service Type	Existing		Newly Added		Total	
Text Books	101847	29436638	3164	1512557	105011	30949195
Reference Books	15947	5199838	352	168274	16299	5368112
e-Books	23956	4900912	9100	75600	33056	4976512
e-Journals	22181	950000	7886	5828648	30067	6778648
Digital Database	12	250000	12	850000	24	1100000
Journals	65	394666	57	260731	122	655397
CD & Video	5000	Nil	600	Nil	5600	Nil
Library Automation	Nil	Nil	Nil	Nil	Nil	Nil
Weeding (hard & soft)	Nil	Nil	Nil	Nil	Nil	Nil
Others (specify)	2300	87000	23000	47200	25300	134200
View File						

4.2.3 – E-content developed by teachers such as: e-PG- Pathshala, CEC (under e-PG- Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc

Name of the Teacher	Name of the Module	Platform on which module is developed	Date of launching e-content
Dr. R. Suresh	Engineering	Impartus	09/06/2019

Babu	Mathematics		
Dr. A Vallabha Reddy	Numerical Mathematical Biology	Impartus	23/08/2019
Mr. T P Krishna Murthy	Industrial Environmental Biotechnology	Impartus	24/08/2019
Dr. Rajeswari M Kulkarni	Introduction to Transport Phenomena	Impartus	23/08/2019
Dr. Rajeswari M Kulkarni	Transport Phenomena	Impartus	27/08/2019
Niranjan G Hiremath	Transportation Engineering II	Impartus	23/08/2019
Raje Gowda	Estimation Costing	Impartus	26/08/2019
Chandrika Prasad	Operating Systems	Impartus	26/08/2019
Vandana S	Operating Systems	Impartus	26/08/2019
Sanjeetha. R	Computer Networks	Impartus	26/08/2019
View File			

4.3 – IT Infrastructure

4.3.1 – Technology Upgradation (overall)

Type	Total Co mputers	Computer Lab	Internet	Browsing centers	Computer Centers	Office	Departme nts	Available Bandwid th (MBPS/ GBPS)	Others
Existin g	3100	42	680	2	0	95	3005	680	0
Added	264	5	600	0	0	10	254	600	0
Total	3364	47	1280	2	0	105	3259	1280	0

4.3.2 – Bandwidth available of internet connection in the Institution (Leased line)

600 MBPS/ GBPS

4.3.3 – Facility for e-content

Name of the e-content development facility	Provide the link of the videos and media centre and recording facility
Impartus: Leading Video Platform for Lecture Capture and Live Online Courses	https://a.impartus.com/
Online classes : Video Streaming Server	http://103.109.109.110/
Moodle Server	http://103.109.109.103/

4.4 – Maintenance of Campus Infrastructure

4.4.1 – Expenditure incurred on maintenance of physical facilities and academic support facilities, excluding salary component, during the year

Assigned Budget on academic facilities	Expenditure incurred on maintenance of academic facilities	Assigned budget on physical facilities	Expenditure incurred on maintenance of physical facilities

2221

2113

1002

913

4.4.2 – Procedures and policies for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc. (maximum 500 words) (information to be available in institutional Website)

The institution has a total 126 classrooms, 103 laboratories, central library, 1 auditorium, 5 seminar halls, 4 board rooms, and playground. All the classrooms are equipped with Wifi and LCD. The optimal utilization is ensured through encouraging innovative teaching - learning practices. The available physical infrastructure is optimally utilized beyond regular college hours, to conduct certificate courses, cocurricular activities/extra curricular activities, proctor meetings, campus recruitment training classes, meetings, seminars, conferences, etc. Each laboratory is equipped with sufficient number of required experimental setups. Every department has computer laboratories which are utilized for online examinations, aptitude tests, project development and competitions by students of all departments. E-facilities such as Moodle Server and Impartus are available. Moodle is a free and opensource learning management system (LMS) with customizable management features and is used to create online courses / tests for educators and trainers to achieve learning goals. Most of the departments have maintained their own Moodle Servers.

Impartus Lecture Capture Video The college has an equipped Lecture Capture System. This has been installed in 12 classrooms and used by 14 departments and a total of 120 courses have been recorded till date. Content captured are saved in the servers owned by the Institute. The entire campus is WiFi enabled with internet speed of 600 Mbps. A separate leased line internet connection of 280 Mbps is utilized for the wired network within the campus. Library consists of books, journals, Library Software (LIBSYS), ejournals, ebooks, etc. Central library works from 08 AM to 10.00 PM. Open access system available for good number of reference books and journals are the salient features of the central library. Esources are shared across departments whenever needed. The Library resources have been completely Bar Coded and automated using LIBSYS 7 (Rel.3) Integrated Library Package, which helps in Transactions, OPAC (Online Public Access of Catalogues) and reservation of Books, etc., for the users. Library provides a Technology Platform and Database of Plagiarism Checking Tool "Turnitin Web Tool", SCOPUS Database and "NetAnalytikSsententia" in support of R D activities of students and faculty. Digital Libraries that are setup in both Library and Information Centre 1 2. The faculty publications, project reports, question papers are uploaded on to the Digital Library server using Dspace Software and is accessible within the campus. Remote access to eresources is facilitated through the services of KNIMBUS Digital Library Platform with Remote Access Solution. "Local G", video content management software, is available and hosts around 23000 NPTEL courses on local server that are being streamed across the campus 24 x 7 uninterruptedly. Sports facilities for Basketball, Cricket, Tennis, Taekwondo, Football, Throw Ball, Badminton, Chess, Carom and Table Tennis, etc., are provided by the institute. Cash incentives are given for outstanding performance in sports. The fitness centre in the college is open to all faculty, staff, and students. It is well equipped with a multigym for general fitness and specific sports conditioning. A fitness instructor is available to train the staff and students of MSRIT.

<http://www.msrit.edu/#>

CRITERION V – STUDENT SUPPORT AND PROGRESSION

5.1 – Student Support

5.1.1 – Scholarships and Financial Support

	Name/Title of the scheme	Number of students	Amount in Rupees

Financial Support from institution	MSRIT Alumni Association	125	1824200
Financial Support from Other Sources			
a) National	Government Schemes	1533	53656702
b) International	Nil	Nil	0
View File			

5.1.2 – Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,

Name of the capability enhancement scheme	Date of implementation	Number of students enrolled	Agencies involved
The International day of Yoga	21/06/2019	350	M S Ramaiah Institute of Technology
Soft skill development	20/01/2020	1398	M S Ramaiah Institute of Technology
Remedial coaching	07/10/2019	100	M S Ramaiah Institute of Technology
Language lab	26/08/2019	1219	M S Ramaiah Institute of Technology
Bridge courses	25/11/2019	120	M S Ramaiah Institute of Technology
Personal Counselling	26/08/2019	612	M S Ramaiah Institute of Technology
View File			

5.1.3 – Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year

Year	Name of the scheme	Number of benefited students for competitive examination	Number of benefited students by career counseling activities	Number of students who have passed in the comp. exam	Number of students placed
2019	Soft skill development /Career counselling	1398	1398	1343	1141
View File					

5.1.4 – Institutional mechanism for transparency, timely redressal of student grievances, Prevention of sexual harassment and ragging cases during the year

Total grievances received	Number of grievances redressed	Avg. number of days for grievance redressal

4

4

2

5.2 – Student Progression

5.2.1 – Details of campus placement during the year

On campus			Off campus		
Name of organizations visited	Number of students participated	Number of students placed	Name of organizations visited	Number of students participated	Number of students placed
Intel and others	1398	936	nil	Nil	Nil
View File					

5.2.2 – Student progression to higher education in percentage during the year

Year	Number of students enrolling into higher education	Programme graduated from	Department graduated from	Name of institution joined	Name of programme admitted to
2019	1	BE	Electrical & Electronics Engineering	Rajiv Gandhi Institute of Petroleum Technology	MS in Electrical Engineering
2019	1	BE	Electrical & Electronics Engineering	Georgia Tech College of Computing	MS in Electrical Engineering
2019	1	BE	Computer Science & Engineering	IIMB Bangalore	MS in Computer Science
2019	1	BE	Computer Science & Engineering	Columbia University New York	MS in Computer Science
2019	1	BE	Computer Science & Engineering	British Columbia Canada	MS in Computer Science
2019	6	BE	Computer Science & Engineering	Arizona State University USA	MS in Computer Science
2019	1	BE	Chemical Engineering	ICT Mumbai	MS in Chemical Engineering
2019	1	BE	Chemical Engineering	Bournemouth University	MS in Chemical Engineering
2019	1	BE	Biotechnology	University at Buffalo	MS in Biotechnology
2019	1	BE	Biotechnology	University of Amsterdam	MS in Biotechnology
View File					

5.2.3 – Students qualifying in state/ national/ international level examinations during the year
(eg:NET/SET/SLET/GATE/GMAT/CAT/GRE/TOFEL/Civil Services/State Government Services)

Items	Number of students selected/ qualifying
GATE	34
GMAT	2
CAT	5
GRE	70
TOFEL	66
View File	

5.2.4 – Sports and cultural activities / competitions organised at the institution level during the year

Activity	Level	Number of Participants
Memorial Parliamentary Debate 2019	State Level	120
SHOUTOUT 12.0	State Level	500
M S Ramaiah Memorial Quiz Fest 2019	State Level	150
20th Annual VTU Youth Festival INSIGNIA	State Level	800
PES-Try	State Level	100
Battle Simulations	State Level	50
Aavishkaar	State Level	400
14th Dr. M S Ramaiah Memorial State Level Basketball Men Women tournament	State Level	200
Organized VTU State Level Swimming Competition (Men Women) 2019-20	State Level	500
Organized VTU Sports Achievers Day function	State Level	800
View File		

5.3 – Student Participation and Activities

5.3.1 – Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one)

Year	Name of the award/medal	National/ Internaional	Number of awards for Sports	Number of awards for Cultural	Student ID number	Name of the student
2019	Open National Ranking Championship 2019 Roller Sketing	National	1	Nil	1MS19EI025	GANA SHYAMA PRABHU
2019	JUDO	National	1	Nil		K

					1MS16CS044	SIDHARTH NAMBIAR
2019	JUDO	National	1	Nil	1MS19ME111	NILAY VARMA
2019	WRESTLING	National	1	Nil	1MS19EC080	PAVITHRA H PRASAD
2019	JUDO	National	1	Nil	1MS19EC080	PAVITHRA H PRASAD
2019	WRESTLING	National	1	Nil	1MS16EE022	KEERTHANA S
2019	SWIMMING	National	1	Nil	1MS19EC119	SUPREET BAJANNAVAR
2019	SWIMMING	National	1	Nil	1MS18EI011	ARUNDHATI S DESHPADE
2019	SWIMMING	National	1	Nil	1MS18CS025	ARAVIND SHREYAS R
2019	SWIMMING	National	1	Nil	1MS18ME207	YASH KUSANE
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5.3.2 – Activity of Student Council & representation of students on academic & administrative bodies/committees of the institution (maximum 500 words)

Institute provides opportunity to students to represent on academic and administrative bodies/committees. Every year, all the departments identifies two representatives from each semester preferably one boy and one girl. Principal meets all the representatives at least once in a semester after the first internals and discusses about the courses offered, teaching methodology and the evaluation process. Institute encourages number of activities that are hosting under the banner of different clubs/forums/professional societies. Throughout the year numerous activities are organized for students to trail their hobbies. To mention few, institute regularly sponsors students team to participate in SAE Aero design west, USA, UAV competition at Maryland and Bharath Formula Electric Karting competition. The students participate in the Faculty feedback every semester and institute feedback every year. All departments organize at least two guest lectures every semester delivered by the industrial experts and/or academicians from institutes of eminence which helps students to interact and expose themselves to state of the art research. In most of the departments, at least two students from the final year are invited for the BOS meeting to share their views on the curriculum and evaluation. Apart from this, student members are invited for the IQAC meeting. The students participate community services and extension activities through NSS, women cell and clubs. Every year, institute recognizes the best student from each programme and best outgoing student from the institute. MSRIT has also embarked gold medal for the rank holders from each programme.

5.4 – Alumni Engagement

5.4.1 – Whether the institution has registered Alumni Association?

Yes

The alumni association of MSRIT has served as a bridge in promoting interactions and fostering relationship among alumni, students, staff and management. There is a separate alumni portal (www.msritalumni.com) where

alumni can interact through sharing information, messages, pictures, posting jobs etc. The portal also shares news of the activities in the institute. The portal has more than 14500 members and is mobile compatible with app Vaave available at Google Play store. Its chapters at Andhra Pradesh, Chennai, Cochin, Patna, Orissa and Dubai are organizing activities to bring MSRITians in their region closer. Current activities of the association are Scholarships to students: The association initiated Merit and Means scholarships, Shri Krishna P Godasi and GMW Aspire Foundation scholarships to support financially weaker and meritorious students Merit and Means Scholarship was initiated to financially assist the deserving students of MSRIT based on 80 of their merit and 20 of their means. The amount of scholarship per student is Rs 10000/. Every year about 40 to 50 students are awarded this scholarship. Shri Krishna P Godasi Scholarship -Shri Krishna P. Godasi Scholarship is instituted in the memory of Late Shri Krishna P. Godasi an alumnus by Soma Enterprises, to the students in any branch of engineering or architecture at M.S. Ramaiah Institute of Technology. The objective of this Scholarship is to grant full tuition fee for the entire B.E. / B.Arch course provided the students who meet the required criteria. Each year about 1011 lakhs are awarded to 2030 students. GMW Aspire foundation Scholarship MSRIT Alumni Association provides Scholarship of Rs.1,00,000.00 (Rs. One Lakh Only) through GMW Aspire Foundation which is an initiative by our distinguished alumni Sri Jasbir Singh. Project Funding: This scheme was initiated to motivate our budding engineers to get into some good projects, by providing some financial assistance by the association. MSRIT AA funds an amount of Rs. 1.3 to 1.5 Lakh every year towards UG PG Student Projects. Awards Distinguished Alumni award Eminent alumni who are at the pinnacles of organization and have significantly contributed to the nation, to the society are recognized during annual alumni meet. Gold Medals Alumni have instituted gold medals in most of the departments. First rank holders are awarded these gold medals during graduation day ceremony. Best Projects: Best Projects in both undergraduate and post graduates are awarded every year during farewell function. The award comprises of a trophy and a citation to each group member. Research Fellowship Scheme: MSRIT Alumni Association has instituted a research fellowship scheme for faculty doing quality research. This comprises of a monthly fellowship of Rs 5000/ and a contingency grant of Rs 10000/ annually. Bus Pass: Every year about 4050 deserving students are provided grant for bus pass facility. Library: The association has provided a book bank facility at institutes' library. Distinguished Alumni Talk Series: Distinguished Alumni Talk series was initiated as per the suggestions of Governing Body. Thirteen talks under this series has been delivered by eminent alumni. Alumni meet: The association facilitates batch

5.4.2 – No. of registered Alumni:

1156

5.4.3 – Alumni contribution during the year (in Rupees) :

1659950

5.4.4 – Meetings/activities organized by Alumni Association :

- MILANA 2019 - Alumni Meet: The annual alumni meet of Ramaiah Institute of Technology, MILANA-2019 was organized on 17th August 2019 in the institute campus
- Three Executive Council Meeting during 2019-2020
- Merit and Means Scholarship
- Shri Krishna P. Godasi Scholarship
- Student Project Funding
- Best Project Award
- Gold Medals for first rank holders
- Distinguished Alumni Talk
- MSRITAA Research Fellowship Scheme
- Mid-day Meals
- Bus Pass Scheme
- 3-D Printing facility

CRITERION VI – GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 – Institutional Vision and Leadership

6.1.1 – Mention two practices of decentralization and participative management during the last year (maximum 500 words)

M S Ramaiah Institute of Technology practice a culture of participative management, by involving faculty members in a number of administrative roles in various academic and nonacademic committees such as Governing body, Academic Council, Finance committee, Sports committee, Board of Studies, Board of Examiners, Welfare Association and many other decision making committees of the Institute. The Institute has established a decentralized structure for decision making where various committees interface their decisions with Institute committees. The administration is supervised by the Governing Body (GB) of the institution. The GB constitutes the Directors of the institution, eminent academicians, renowned industrialists, the Principal and few senior faculties. The GB meets twice in a year and reviews the progress/growth of the institution. The GB approves the Vision and Mission, strategic plan, establishment of new programs of study leading to degrees, plan for the infrastructure development of the institute. The GB reviews the implementation of the suggestions made, based on the activities conducted the targets and action plan will be revised to fulfil the Vision and Mission of the Institutions. Many of the senior faculties are the members of various Decision making committees such as Governing body, Academic Council, Finance committee, Grievance committees and others to implement monitor academic/administrative matters of the institution. The RD committee in the institution monitors the research activities and the faculty are encouraged/appreciated with the incentives for their research accomplishments. Participation of teachers in the decision making bodies of the institution Governing Body: Principal, VicePrincipal, Registrar(Academic), Controller of Examinations and 1 more senior faculties are the members Academic Council: Principal, VicePrincipal, Registrar(Academic), Controller of Examinations, All the Heads of the Departments and 2 more senior faculties are the members Finance Committee: Principal, VicePrincipal, Registrar (Academic) and one of the senior faculty are the members

6.1.2 – Does the institution have a Management Information System (MIS)?

Yes

6.2 – Strategy Development and Deployment

6.2.1 – Quality improvement strategies adopted by the institution for each of the following (with in 100 words each):

Strategy Type	Details
Admission of Students	Admission of students for undergraduate program is through CET, COMEDK and Management. Postgraduate student's admission is through PG CET and Management. Year by year intake ranking is improved and admission are 100 in all courses.
Industry Interaction / Collaboration	Memorandum of Understanding with following industries has been made with the following Institutions in last one year. 1. IDOC Med Solution 2. Shriram Institute for Industrial Research 3. Lucid Software Ltd 4. ACE Manufacturing System Ltd. 5. Elsevier. B. V 6. Maastricht University 7. Toyo University, Japan 8. University of

Illinois, Chicago 9. M/s. AKOI 10. Goodwill Industries 11. Snam Alloys Pvt. Ltd 12. Samsung RD Institute India, Bangalore 13. SVYASA 14. Syrow, Bangalore A delegation from GEF had visited University of Illinois, University of Illinois Urbana Champ, Texas AM and University of Southern California for exchange of students for projects and higher education. Joint projects are initiated in collaboration with Boeing. Institution has received consultancy projects worth more than one crore from Centre for Airborne Systems, DRDO, HAL and BESCOM

Human Resource Management

Recruitment of faculty based on the specialization is made in all the department. Pedagogy training for the newly recruited faculty is conducted for Five days. More than 270 faculty have been deputed for national and International conferences, workshops and seminars. Two pedagogy programmes organised on outcome based education and assessment. Programmes on writing effective project proposals, IPR have been conducted by the Research and Development cell.

Library, ICT and Physical Infrastructure / Instrumentation

Additional 3164 volumes are added in the main library. Turnitin Plagiarism software is renewed and available. Internet speed enhanced from 300 MBPS to 400 MBPS. Additional 100 computers added in many laboratories across the institute. Many departments have procured new equipment and software based on the revised curriculum. Centralised data centre has been established. Equipment for Centre of Excellence in Imaging Technology is procured. More than 33000 e-books from reputed publishers are made available during pandemic. More than 7800 e-Journals are provided to Faculty for research purpose. Remote access to IEEE, Springer and Taylor Francis Journals are made available during pandemic.

Research and Development

There are 18, Visvesvaraya Technological University recognised research centres in MSRIT. Department of Architecture and Department of Electronics and Instrumentation is recognized as research center under VTU. Major equipments like XRD, TGA, UTM were procured and made functional. Majority of the research scholars are

	utilizing centre for advance materials. Total of 13 Patents are being filed and 70 research papers were published from CAMT and Center for Imaging Technology. Two Books has being published under the research centers.
Examination and Evaluation	<p>Internal exams for the revised credit batch internal tests are reduce form three to two and both are mandatory. Question wise marks entry in ESutra portal must be made to find the Course Outcome attainment. Rubrics based evaluation for project and seminar is compulsory and the same audited. Minimum of Internal marks 45 and 80 attendance is required to take makeup examination. Online entry of marks is E Sutra is made compulsory to find attainment of course outcomes</p>
Teaching and Learning	<p>Apart from regular black board teaching for majority courses contents are made available in the form of power point. Lecture for more than 120 courses are available online for the students. Tutorial sheets for all analytical courses are provided for students well in advance. Students are asked enroll for MOOCS apart from the regular courses and weightage for the same is given in internals. Project based courses are introduced in Information technology related courses. Video storage, streaming and video editing facilities were established for online classes during the pandemic. More than 300 course lectures are made available for the Students. Pedagogy on effective use of ICT was conducted for all the Faculty to teach effectively online.</p>
Curriculum Development	<p>Based on the revised guidelines of AICTE and Visvesvaraya Technological University, total credits have been reduced to 175 from 200 for Undergraduate programmes, 88 credits from 100 credits for M. Tech programmes. Student must earn 100 activity points for social work during 4 years of Bachelor of Engineering degree programme. Industrial visit is made mandatory for all the Undergraduate programs. Percentage change in the courses for many undergraduate programs vary from 10 to 15 because of change in the credits.</p>

6.2.2 – Implementation of e-governance in areas of operations:

E-governance area	Details
Planning and Development	Nil
Administration	Institution has online Grievance Redressal Mechanism. The students can submit their grievances through the portal. Link: http://www.msrit.edugrievance.com/
Finance and Accounts	The institution uses Tally software for Salary Calculation, Income Tax Calculation, Balance Sheet
Student Admission and Support	The institution has online/web based (e-Sutra) system for Student Admission, Registration to Higher semesters, Proctorial process
Examination	The institution has online/web based (e-Sutra) system for Internal and Semester End Exam marks entry, Valuation process, Results, Marks/ Grade details

6.3 – Faculty Empowerment Strategies

6.3.1 – Teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the year

Year	Name of Teacher	Name of conference/ workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Amount of support
2019	Mrs B Suguna Rao	Paper titled Experimental and Analytical Behavior of Recycled Aggregate Concrete Using Ann presented in National Conference on -FACE 2019 held at Mahindra Ecole, Hyderabad	MSRIT	6140
2019	Sri Basavanagowda G M	GIAN Course on Seismic Soil Pile Interaction held at NIT, Tirchy	MSRIT	4545
2019	Sri Prashanth Sunagar	Paper presented titled Comparative Study of Different Interior and	MSRIT	7400

		Exterior Structural Forms used in Design of Tall Structures presented in International Conference on Emerging Technologies for Sustainability (AICERA 2019) held at Amal Jyothi Col		
2019	Dr Harish N	One-Day ABET Accreditation Seminar at International Centre, Goa	MSRIT	3000
2019	Sri Koteswararao Jammula	Technical Paper Presented at International Conference on Engineering, NuiCONE - 2019 at Institute of, Nirma University, Ahmedabad	MSRIT	19050
2019	Dr G M Madhu	One-Day ABET Accreditation Seminar at International Centre, Goa	MSRIT	3000
2019	Dr Prabha M	Workshop on Statistical Methods in Medical Research and Introduction to SPSS held at NIMHANS, Bangalore	MSRIT	4000
2019	Priyadarshini Dey	Workshop on Statistical Methods in Medical Research and Introduction to SPSS held at NIMHANS, Bangalore	MSRIT	4000
2019	Krishna Murthy T P	GIAN Course on GPU	MSRIT	7245

		Computing in Computational Biology at Discipline of Biosciences and Biomedical Engineering (BSBE) held at IIT, Indore		
2019	Yashas Hegde	Technical Paper presented at 3rd Asian Regional Conference on Peri Urbanization - Sustainable Urban-Rural Futures. Held at Bhopal	MSRIT	12430
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6.3.2 – Number of professional development / administrative training programmes organized by the Colleges for teaching and non teaching staff during the year

Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	From date	To Date	Number of participants (Teaching staff)	Number of participants (non-teaching staff)
2019	SEAT for Rural India (Science, Education and Technology for Rural India)	Nil	26/06/2019	06/07/2019	35	1
2019	SEAT for Rural India	Nil	29/06/2019	06/07/2019	35	1
2019	Current trends in service oriented Architecture	Nil	08/07/2019	13/07/2019	40	2
2019	Smart Class Room Tools (Bodhi tree, SAFE, EvalPro)	Nil	22/07/2019	24/07/2019	62	2

2019	Recent trends in utilization of Waste Materials in Construction Industries and its impact	Nil	22/07/2019	27/07/2019	79	1
2019	FDP on scope and significance of materials science for industry - Academia collaboration	Nil	29/07/2019	03/08/2019	37	2
2019	Green Economy and Sustainable Development: Challenges And Issue	Nil	07/06/2019	08/06/2019	250	1
2019	2D and 3D Models of Cell Culture and their Applications	Nil	17/06/2019	26/06/2019	50	2
2019	2D and 3D Models of Cell Culture and their Applications	Nil	17/06/2019	26/06/2019	35	2
2019	NATIONAL CONFERENCE ON EMERGING TRENDS IN MECHANICAL ENGINEERING FOR UG/PG STUDENTS AND RESEARCH SCHOLARS	Nil	26/06/2019	26/06/2019	84	1

6.3.3 – No. of teachers attending professional development programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes during the year

Title of the professional development programme	Number of teachers who attended	From Date	To date	Duration
e-WorkshopEmerging Applications of Nanotechnology	1	10/08/2020	14/08/2020	4
International Leadership Summit	1	30/08/2019	31/08/2019	2
Geometry ,Imaging and parallel computing Techniques for cancer treatment	1	10/06/2019	15/06/2019	5
Machine Learning Application in Signal processing	1	04/06/2019	09/06/2019	5
Management of Intellectual Property	1	17/06/2019	18/06/2019	2
Digital water marking for ROI RONI with break through visibility parameter	1	17/07/2019	18/07/2019	2
Image fusion and multimodal imaging Fundas to Advanced	1	15/07/2019	20/07/2019	5
Testing and calibration of medical devices	1	31/07/2019	31/07/2019	1
Random Process ,Statistical Inference and Experimental Design	1	29/07/2019	03/08/2019	6
Research Methodology	1	26/07/2019	04/08/2019	10

6.3.4 – Faculty and Staff recruitment (no. for permanent recruitment):

Teaching		Non-teaching	
Permanent	Full Time	Permanent	Full Time
390	390	293	293

6.3.5 – Welfare schemes for

Teaching	Non-teaching	Students
Medical Insurance, Transport Facility, Incentives for quality publications, Fee concession	Medical Insurance, Transport Facility, Fee concession, Timebound Increment	Medical Insurance, Transport Facility, Institutional Scholarships, Midday meal for the needy students, Project funding, Bus pass facility for the needy students

6.4 – Financial Management and Resource Mobilization

6.4.1 – Institution conducts internal and external financial audits regularly (with in 100 words each)

The institute conducts regular financial audits. The institute has a formal mechanism for internal and external audits. The accounts are regularly audited to ensure financial compliance. Internal Audit: The internal audit is a continuous process. The finance committee and the Qualified Auditors from external resources have been appointed and a team of staff under them do a methodical verification. The team verifies all payments, receipts, vouchers of the cash transactions, ledgers and cash book. Process audit of the accounts is done by IQAC cell of the institute twice in a year. External Audit: The external auditor/agency appointed by the college performs audit of the financial statements of the college. The financial records are audited by qualified chartered accountants at the end of each financial year. The financial records are certified i.e., income and expenditures, balance sheet and prepared notes to accounts are certified. The Institution publishes audited financial statements on the institutions website as information for the concerned people.

6.4.2 – Funds / Grants received from management, non-government bodies, individuals, philanthropies during the year(not covered in Criterion III)

Name of the non government funding agencies /individuals	Funds/ Grnats received in Rs.	Purpose
Management	41706900	Research
View File		

6.4.3 – Total corpus fund generated

1513657454

6.5 – Internal Quality Assurance System

6.5.1 – Whether Academic and Administrative Audit (AAA) has been done?

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	Prof. Raikar and Team	Yes	IQAC
Administrative	Yes	Prof. Raikar and Team	Yes	IQAC and Finance

6.5.2 – Activities and support from the Parent – Teacher Association (at least three)

1. Online portal for parents to monitor their wards <http://parents.msrit.edu/>. Parents can monitor the Progress of their ward, fee dues/paid details, exam results etc. 2. Industrial visits 3. Technical talks 4. Internships

6.5.3 – Development programmes for support staff (at least three)

1. Skill up gradation on e-governance 2. Skill up gradation on technologies related to laboratory 3. Training on maintenance and servicing of equipment

6.5.4 – Post Accreditation initiative(s) (mention at least three)

- Established Data Centre facilities for creation of ERP - Enterprise Resource Planning
- Centre for Antennas and Radio Frequency Systems (CARFS)
- Video storage, streaming and video editing facilities were established for online classes during the pandemic

6.5.5 – Internal Quality Assurance System Details

a) Submission of Data for AISHE portal	Yes
b) Participation in NIRF	Yes
c) ISO certification	No
d) NBA or any other quality audit	Yes

6.5.6 – Number of Quality Initiatives undertaken during the year

Year	Name of quality initiative by IQAC	Date of conducting IQAC	Duration From	Duration To	Number of participants
2019	IQAC general body meeting	21/10/2019	21/10/2019	21/10/2019	23
2019	Submission of AQAR (2018-19)	03/10/2019	01/08/2019	03/10/2019	40
2019	IQAC audit	06/08/2019	06/08/2019	07/08/2019	450
2019	NIRF	19/12/2019	19/12/2019	19/12/2019	360
2020	VTU, LIC visit	23/06/2020	23/06/2020	23/06/2020	380
2019	IQAC general body meeting	08/04/2019	08/04/2019	08/04/2019	15
2020	Outcome Based Education and NBA Accreditation	20/01/2020	20/01/2020	24/01/2020	72
2019	5 Day Webinar NBA and NAAC Accreditation Process	04/06/2020	04/06/2020	08/06/2020	2100
2019	IIQA Submission	24/10/2019	24/10/2019	24/10/2019	450

2019	Smart class room tools	22/07/2019	22/07/2019	24/07/2019	80
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CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES

7.1 – Institutional Values and Social Responsibilities

7.1.1 – Gender Equity (Number of gender equity promotion programmes organized by the institution during the year)

Title of the programme	Period from	Period To	Number of Participants	
			Female	Male
WIE Technodium 2020	06/03/2020	08/03/2020	365	135
State Level Swimming Competition Men and Women	18/09/2019	18/09/2019	10	10
State Level Basketball Men and Women tournament	09/09/2019	11/09/2019	12	12
Pro - Kabaddi - Inter Branch Competition	13/11/2019	13/11/2019	12	12

7.1.2 – Environmental Consciousness and Sustainability/Alternate Energy initiatives such as:

Percentage of power requirement of the University met by the renewable energy sources
33

7.1.3 – Differently abled (Divyangjan) friendliness

Item facilities	Yes/No	Number of beneficiaries
Physical facilities	Yes	31
Provision for lift	Yes	31
Ramp/Rails	Yes	31
Braille Software/facilities	Yes	Nil
Rest Rooms	Yes	31
Scribes for examination	Yes	2
Special skill development for differently abled students	No	Nil
Any other similar facility	No	Nil

7.1.4 – Inclusion and Situatedness

Year	Number of initiatives to	Number of initiatives	Date	Duration	Name of initiative	Issues addressed	Number of participating
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	address locational advantages and disadvantages	taken to engage with and contribute to local community				students and staff	
2019	1	1	26/07/2019	3	Strategies for Sustainable Rural Development	Farmers interacted with Krushi Vignana Kendra (KVK), Kanneri	15
2019	1	1	05/06/2019	1	Knowledge Sharing with Villages/Farmers	Under this program, LSIKC members interacted with Natural Farmer Sri. Tham maiah, Choudikatte - Village, Near Hunusuru	10
2019	1	1	06/07/2019	1	SEAT for Rural India	Interaction with Sri. Ayyappa Masagi, Water Gandhi, at Holavanahalli	10
2019	1	1	20/09/2019	1	Strategies for Sustainable Rural Development	Interaction with Farmers to address the issues at Patahlinganahalli, Nelamangala	15
2019	1	1	22/12/2019	1	Family Farmer Program	Interaction with Farmers to address the	15

						issues at Lakkenahalli, Nela mangala	
2019	1	1	26/08/2019	1	Strategies for Sustainable Rural Development - 2	Farmers interacted with Krushi Vignana Kendra (KVK), Kanneri	10
2019	1	1	20/09/2019	1	Farmers Market (Raithara Santhe)	Famers Market issues	30
2020	1	1	06/01/2020	6	5G Communication Networks and its Future Perspective	Experts from Indian Institute of Science Bangalore and other Industries have given awareness on future of 5G communication networks.	66
2020	1	1	04/02/2020	1	Skill Development Programme	The CEO Founder, Campus.Build, has outlined the importance of students attaining extra skills for better job opportunities	76
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7.1.5 – Human Values and Professional Ethics

Title	Date of publication	Follow up(max 100 words)
Code of conduct handbook for Students', Faculty Supporting staff	01/01/2020	Students: The identity card with photograph affixed, must be carried

by the student at all the times while on the campus and must be produced on demand. Faculty: The code of professional conduct for faculty applies to all faculty of the institution. Be updated in the knowledge of subject and the current affairs. Usage of ICT tools of teaching to make the lectures more interesting. Supporting Staff: Use all work hours productively and ensure that their activities in the workplace do not impede the effective operation of their department. Maintain supportive environment for while performing their assigned duties.

7.1.6 – Activities conducted for promotion of universal Values and Ethics

Activity	Duration From	Duration To	Number of participants
Womens Day	08/03/2020	08/03/2020	250
Republic day	26/01/2020	26/01/2020	150
Independence Day	15/08/2019	15/08/2019	1500
Engineers Day	15/09/2019	15/09/2019	750
Karnataka Formation Day	02/11/2019	02/11/2019	6000
Teachers Day	05/09/2019	05/09/2019	360

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7.1.7 – Initiatives taken by the institution to make the campus eco-friendly (at least five)

- Efforts towards green practices Dept of Civil Engineering has adopted the extensive research on Geopolymer concrete [GPC] which avoids the use of cement in the manufacture of concrete The construction activity involving concrete is a major contributor to greenhouse gases Cement is a major component of concrete which is essential as it acts as the adhesive in the concrete matrix This cement is a major contributor for greenhouse gas CO2 which is produced during its manufacture Reducing the use of cement reduces our CO2 emission thus reducing our carbon footprint Dept of Civil Engineering also holds a patent for total replacement of natural sand by pond ash in concrete, which is aimed at reducing the demand of natural sand for use as fine aggregate in concrete, which would stop the illegal mining of river bed sand thus protecting the river bed and stop the mining of this material Steps towards carbon neutrality, e-waste hazardous managements, conservation of energy and water are undertaken
- Public Transport: The institution has provided transport facility for the staff to commute between their homes and the college The transport is made available to the staff to attend any technical and other activities happening at other universities or to any event in industry The transport facility is available

for the students also for any visit to industry or to attend any other activity representing the college • Plastic free campus: Signage boards saying "PaperLess Zone" is displayed at various places in the campus • Paperless Office: Mails are extensively used to ensure that the office is paperless to a large extent Most of the verbal communication in the college is done through the intercom facility which is available in all laboratories, offices, faculty rooms as well as canteen and hostels Most of the official communications like notices, programme communications, minutes are shared through emails Most of the office files are shared through softcopies on computers • Green Practices: The campus has aesthetically designed buildings, surrounded by greenery creating good ambience for learning The campus also houses separate hostels for men and women Dustbins have been provided along all major corridors for collection and disposal of waste Water facility has been provided both for gardening and drinking Fire fighting services have been installed all around the campus as per the regulatory norms suggested during the approval for the building plans The campus has provided the option of Rain Water Harvesting and has well grown trees, thus making the institute, green and ecofriendly Well grown plants around the campus are maintained to reduce the effect of pollution The greenery initiation has been implemented in a phased manner

7.2 – Best Practices

7.2.1 – Describe at least two institutional best practices

1 Title of the Practice a. Implement outcome based education in Undergraduate and postgraduate programs b. Research promotional policy to improve RD Activities, Ranking and Accreditation 2 Objectives of the Practice a. Effective Implementation of outcome based education for improving graduate attributes and to get accreditation from National Board of Accreditation Change of accreditation from output put model to Outcome model was a major challenge to change our teaching learning, assessment methodology and enhancement of outreach activities b. Enhancing the research publications in peer reviewed journals and conference to improve Research and Consultancy component in NIRF Ranking Sudden changes in accreditation procedures, introduction of ranking system such as NIRF and QS Ranking has imposed as great challenge to improve research culture in the Institution 3 The Context a. M S Ramaiah Institute Technology is 57Yearold institution with highly experienced faculty Changing the mindset of the faculty from output model system to outcome model was a major challenge Establishing the robust assessment procedures, feedback collection and assessment from stake holders and enhancing the stakeholder involvement in curriculum design to assessment was a big challenge b. M S Ramaiah Institute Technology has well established undergraduate teaching institution Majority of the postgraduate programmes started between the academic years 2005 to 2014 Changing the orientation of faculty from teaching, enhancing the research culture and encouraging the faculty to improve the qualification from PG to PhD was a major challenge Establishing the Research and development centres at centre for excellence was a major challenge 4 The Practice a. With reference to the implementation of the outcome based education thee main constraint was to train the faculty to understand the concept of Vision, Mission, Program educational objectives, Program Outcomes Course Outomes and mapping of the same Modifying the curriculum by involving the stakeholders and collection of feedback from stakeholder and summarising the same with reference to curriculum changes Involving Industry in curriculum design and delivery and collecting the feedback from the employers was a major challenge Assessment of projects and seminar based on wellestablished rubrics to bring the transparency and making the students to understand the process of project implementation and need for seminar presentation to improve written and oral communication was a major challenge Developing the customised software for the assessment of course outcomes and program outcomes by direct and indirect

assessment was a major challenge because of the multiple constraints involved in the assessment methodology Establishing the program assessment committee in all the programmes and training the faculty to access the

Upload details of two best practices successfully implemented by the institution as per NAAC format in your institution website, provide the link

https://s3.amazonaws.com/naac.msrit.edu/new_downloads/Best+Practices.pdf

7.3 – Institutional Distinctiveness

7.3.1 – Provide the details of the performance of the institution in one area distinctive to its vision, priority and thrust in not more than 500 words

Provide the details of the performance of the institution in one area distinctive to its vision, priority and thrust It is the topmost aim of MSRIT, to provide equal opportunity to all the students to excel in the academics. In this regards, remedial classes are conducted for weak students, where extra care and one to one interaction is possible students are encouraged to come out of their it built fear and complexity, and open up to discussion in the point of their weakness. This will inculcate self confidence in students and almost all will perform excellent in the examinations. MSRIT has also taken steps to coach fundamentals of mathematics and English to students of foreign origin, particularly from Arab countries, whose English level is lesser compared to others. MSRIT students are encouraged to participate in debate competitions, national and international. Also, they take part as an interdepartmental team in New age car race competitions being held in USA, Japan, and Australia etc. Students from mechanical, computer, electronics, electrical and industrial engineering take part in such competitions making a group. As a student welfare measure, MSRIT provides life insurance cover to all the students at a nominal cost, MSRIT also provides medical checkup and counselling facilities for needy students.

Provide the weblink of the institution

https://s3.amazonaws.com/naac.msrit.edu/new_downloads/Diversification+of+Curriculum.pdf

8.Future Plans of Actions for Next Academic Year

As evidenced by the NIRF data since the year 2016, MSRIT has a strong teaching culture, and also a good placement record. It has a relatively good gender mix among faculty as well as students, and it has diversified student community. On the other hand, MSRIT is currently lagging behind in research output relative to top engineering institutions. Analysis of the data further shows that the RPC (Research and Professional Practice) score has the strongest correlation with the overall rank considering the top 50 engineering institutions. Based on the SWOC analysis, following plans of action are identified for the next academic year. To provide centralized facility, at least one Centre of Excellence in the area of Advanced Materials. To enhance industry oriented courses. Increase international MoUs. Support and enhance use of online tools such as NPTEL, SWAYAM and MOOC. Provide excellent Teaching Learning opportunity in multidisciplinary teaching. Promote quality research. Enhance seed money to faculty for research. Enrich quality publications.