PROPOSAL FOR DEVELOPMENT OF MADAN MOHAN MALAVIYA UNIVERSITY OF TECHNOLOGY, GORAKHPUR

Submitted to

Technical Education Department Government of Uttar Pradesh, Lucknow

By



Madan Mohan Malaviya University of Technology, Gorakhpur – 273010 (U.P.) – INDIA July, 2016

CONTENTS

SI. No.	Title	Page No.
1.	Introduction	1
2.	Vision of the University	1
3.	Mission of the University	2
4.	Objectives of the University	2
5.	Present state of affairs in the University	3
6.	Proposed Degree Programmes in the University	8
7.	Proposed Infrastructure and Human Resource Requirement	9

1. Introduction:

Madan Mohan Malaviya University of Technology has been incorporated on 1st December, 2013 through Uttar Pradesh Madan Mohan Malaviya University of Technology Act-2013 (Uttar Pradesh Act No. 22,2013) by notification no. 2998/lksyg-1-2013-3(18)/2012Vhlh&II dated 28th November,2013 of Section-I,Technical Education Department, Government of Uttar Pradesh after reconstituting the Madan Mohan Malaviya Engineering College, Gorakhpur.

As per the provisions under article 4 of the Act all the rights and liabilities of the Madan Mohan Malaviya Engineering College, Gorakhpur have been transferred to, and become the rights and liabilities of the University. Thus, all the existing properties, moving and immovable, of or belonging to Madan Mohan Malaviya Engineering College have been vested with the University.

The University is presently having five undergraduate and 14 post graduate programmes running in its campus. It aims at starting various courses at undergraduate and post graduate level for meeting the requirement of quality technical manpower in the country. The present infrastructure of the University is quite old and is not sufficient for meeting its present day requirements. There also exists acute shortage of teachers due to no new recruitment since last five years and due to retirement of faculty members. Thus there is critical requirement of addition of infrastructure in terms of classrooms, seminar rooms, department laboratories, administrative offices, academic offices, hostel, guest house, auditorium etc.

The present proposal for development of the University has been prepared on the basis of inputs received by students, faculty, alumni and staff members of the University with due consideration to the regional and national technical manpower requirement. There have been various rounds of deliberations at different levels. Based on the inputs received it has been feltthat the University should go for creation of suitable infrastructure and start some of the courses as proposed herein. The financial assistance required from U.P. State Government under non-plan and plan budget heads has been prepared in respect to each proposed item in this proposal.

2. Vision of the University:

To facilitate and promote studies, research, technology, incubation, product innovation and extension work in Science, Technology and Management Education, and also to achieve excellence in higher technical education.

3. Mission of the University

- Mission-1 To serve society as a center of higher learning, providing long-term societal benefits through transmitting advanced knowledge, discovering new knowledge and functioning as an active working repository of organized knowledge;
- Mission-2 To take leadership role by providing need based programs in engineering and technology, applied sciences, management, humanities, architecture, pharmacy, retail and fashion design, mass-communication, agriculture and other employable courses in emerging areas;
- Mission-3 To promote compassionate care of the highest quality that translates new knowledge into meaningful improvements in technological outcomes through interdisciplinary collaboration, fiscal responsibility, support of diversity, a focus on quality and a culture of professionalism;
- Mission-4 To establish value creating networks and foster relationship with other leading institutes of higher learning and research, alumni and industries in order to provide significant contribution to national and international development;
- Mission-5 To create an intellectually stimulating infrastructure and conducive environment for technology research, scholarship, creativity, innovation, entrepreneurship and professional activity for service to community and economy.

4. Objectives of the University:

The Objectives of the University are;

- (a) To provide education to a large number of students coming from a variety of educational and socio-economic background in a wide range of applied science, engineering, technology, management disciplines to meet the national and globally competitive needs.
- (b) To strengthen the existing programmes and to start new courses addressing the local and global needs and improve the academic and research environment of the University.
- (c) To promote in students, the values of continuous learning, improvement through development of various skills and relevant learning experience to facilitate their full contribution to the society to which they belong.
- (d) To promote student to work on collaborative applied research projects to gain research work experience and encourage students for undertaking post graduate studies and pursuing their research career.

- (e) To generate new knowledge and participate in the development of technologies by undertaking research at the globally acceptable levels.
- (f) To inculcate amongst students the quest for life long education, ability to think, analytical ability and problem solving skills.
- (g) To build and evolve effective bilateral mechanisms for industry participation to promote need based research and learning and making significant national contribution by creating a relevant knowledge base.
- (h) To set up innovation foundations, science and technology parks, knowledge parks and technology incubators to foster techno-entrepreneurship innovation and new product development;
- (i) To institute a strong community component by forging meaningful linkage based curriculum, faculty and students for incorporating a social perspective in technical education and to design and develop customized products as their needs.
- (j) To act as a trend setting institution and provide guidance and training to technical institutions in the state.
- (k) To disseminate knowledge and processes and their role in national development by organizing lectures. Seminars, symposia, workshops and conferences;
- (l) To publish periodicals, treatises, studies, books, reports, journals and other literature on subjects relating to science, engineering, technology and management;
- (m) To promote and foster cultural and ethical values with an view to promote and foster professional morality, research integrity, globally acceptable business ethics and morals for professionals and a commitment to the human values of truth, tolerance and justice.
- (n) To restructure the systems, structures and processes for academic, managerial, financial and administrative transparency and accountability.
- (o) To do all such things as are incidental, necessary or conducive to the attainment of all or any of the objectives of the University.

5. Present state of affairs in the University:

As per provisions of the Act everything pertaining to the Madan Mohan Malaviya Engineering College has been automatically vested with the University. Present details of academic programmes in the University are detailed below;

(1). Under Graduate Programmes

SI. No.	Name of Programme	Current Intake	Year of Starting
1	B.Tech. (Civil Engineering)	120	2015-16
2	B.Tech. (Electrical Engineering)	120	2015-16

3	B.Tech. (Mechanical Engineering)	120	2015-16
4	B.Tech. (Electronics & Communication Engineering)	120	2015-16
5	B.Tech. (Computer Science & Engineering)	120	2015-16
6.	B.Tech. (Chemical Engineering)	60	2016-17

(2). Post Graduate Programmes

SI. No.	Name of Programme	Current Intake	
1	M.Tech. (Hill Area Development Engineering)	18	1984
2	M.Tech. (Environmental Engineering)	18	2001
3	M.Tech. (Power Electronics & Drives)	18	2001
4	M.Tech. (Computer Integrated Manufacturing)	18	2001
5	M.Tech. (Digital Systems)	18	2003
6	M.Tech. (Computer Science & Engineering)	18	2008
7	M.Tech. (Siesmic Design & Earthquake Engineering)	18	2011
8	M.Tech. (Structure Engineering)	18	2011
9	M.Tech. (Communication Engineering)	18	2012
10	M.Tech. (Information Technology)	18	2012
11	M.Tech. (Control and Instrumentation)	18	2013
12	M.Tech. (Energy Technology & Management)	18	2013
13	Master of Computer Application	60	1987
14	Master of Business Administration	60	2001

(3). Ph.D. Programme

Regular Ph.D. in all Engineering Disciplines including Applied Sciences and Humanities, 8 seats under Quality Improvement Programme of AICTE (CE:2 + EE:2 + ME:2 + EC:2) and 10 seats of Ph.D. (2 seats in each Engineering Department and 4 seats in Applied Science Department)

Existing Facilities of the University

a. Computing Environment and Communication Infrastructure

- (i) Centralized computing facilities (IT Resource Center) with 24X7 availability to students, faculty and staff members for their learning, classroom teaching and research needs. 8 Server (web, proxy, mail, Data-base, Linux & Oracle etc.) with 250 working points), one Rack Server with three Blade and 9TB NAS (Network Access Storage)
- (ii) 10 Gbps Campus Wide Network (NKN) connecting all Departments/Labs/Admin Block/Hostels/Faculty Residences (more than 1600 Access points)
- (iii) 1 Gbps (1:1) NKN leased-line Internet connectivity.
- (iv) 155 Mbps (1:1) BSNL leased-line Internet connectivity
- (v) Centralized availability of one Research lab and 03 Design/training software in three design labs (Three clusters; each with 15 workstations &one server)
- (vi) Total number of PCs available in university are 900 approx.
- (vii) Complete solution to Mechanical & Electronics & Communication engineering problems using ANSYS (100 Users Research License), CREO (50 Users License) and STAD Pro (Unlimited Student license & 15 Research License) Designing software for Civil Engineering
- (viii) Wi-Fi Facility at all various prime locations in campus.

b. Central Library (Fully Automated)

1.	Number of books	1,13,354
2.	Number of E-books (Titles)	1023
3.	Bound National & International Journals	10,160
4.	E-Journals: National & International Journal (online IEEE/IEE/ASME/ASCE through INDEST	1054
5.	Total area of the library (Carpet)	1779.43 sqm
6.	Seating capacity	350
7.	Reading space	178.37sqm
8.	Library staff	18

c. Support Facilities

(i) Sports & Games facilities

- <u>Indoor Sports:</u> Table Tennis, Badminton, Carom, Chess
- <u>Outdoor Sports:</u> Hockey, Football, Cricket, Volley Ball, Basket ball, Lawn Tennis

- Gymnasium: Equipped with modern facilities for both Girls and Boys (6 Stations in Boys Gym and 3 Stations in Girls Gym)
- Skating Court

(ii) Health Centre

- A well developed dispensary &physiotherapy Centre
- Two MBBS Doctors and one Homeopathic Doctor(Part-time)
- One Dresser, one Compounder
- One physiotherapist
- Two Nurses

(iii) Transport Services (for 200 passengers)

- Four Buses
- One Minibus (TATA Winger-AC)
- One Ambulance
- Four staff cars

(iv) Fully Air-Conditioned Gust House:

• 6 rooms and one Dining Hall with adequate parking space

(v) MultipurposeHall

- Capacity 800 seats and utilized for conferences, cultural activities, indoor games & exhibitions, and social activities etc.
- Auditorium of 2000 capacity under construction

(vi) Residential Accommodations

For staff (teaching/non-teaching)

Type V Residences	01
Type IV Residences	58
Type III Residences	32
Type II Residences	52
Type I Residences	67
Total	210

• Hostels (boys): 6 Hostels for boys

Hostels	capacity
(i) Raman Bhawan	260
(ii) Subhash Bhawan	240
(iii) Vishveshwaraya Bhawan	200

(iv) Tagore Bhawan	200
(v) Ambedkar Bhawan (under construction)	240
(vi) Tilak Bhawan	120
Total	1260

• Construction of one Boys Hostel of 240 capacity and extension of two old Hostels (Raman and Subhash) for 240 additional capacities of each are in progress.

• Hostels (Girls)3 Hostels for girl

Hostels		Capacity
(i)	Saraswati Bhawan	200
(ii)	Sarojani Bhawan	70
(iii)	Kalpna Chawala Bhawan	100
	Total	370

Construction of one Girls Hostel of 75 capacity is in progress

Total Capacity: Boys: 1260+720 =1980

Girls: 370+75= 445

Officers' Hostels (Research Scholars)

08 two room flats

(vii) Malaviya Shiksha Niketan

• A school in campus (upto 5th standard) for kids of Staff and Faculty

(viii) Security for facility/Staff/ Hostellers

 University has a full-fledged security system covered with 20 CCTV Cameras under the control of Officer-in-charge, Security

(ix) Post Office

Post office in the University campus

(x) <u>Canteens</u>

Total Three canteens including one Fully Air-conditioned canteen

(xi) Bank

State Bank of India & Two ATMs (SBI &PNB)

(xii) Power Supply

- Non-rostering feeder power supply
- 250 KVA Stand-by power Generators for 24X7 power backup

(xiii) 4 Tube wells & 2 Over Head Tanks

(xiv) 11KV, 650 KVA Electrical Sub-station

(xv) 150 seats Hi-Tech Seminar Hall with Virtual Class facility

6. Proposed Degree Programmes in the University:

The University proposes to start various new undergraduate and post graduate programmes along with capacity enhancement in phased manner. The details of new programmes and capacity enhancement of existing programmes have been proposed under three catagories, namely, short term upto 2018-19, medium term upto 2022-23 and long term upto 2025-26. The detailed plan of above categories (short/medium/long) have been annexed at Annexure-1 and Annexure-2. Here sufficient stress is given for running full time Ph.D. programme in different departments so that the University can become the premier centre of creation for technical knowhow. The Ph.D. scholars are intended to be admitted in the form of Research cum Teaching Fellow so that they also contribute to the ongoing teaching activity of the University while pursuing their Ph.D. It is proposed that these Ph.D. fellows should be given scholarship @Rs. 25000/- per month for three years and contingency grant of Rs.10000/- per year.

The list of different new programmes proposed to be started in different academic session and the increase in intake of existing programmes is given below for reference.

SI. No.	Name of the Department	New Programme	Type of Vision	Starting Year
1	Chemical Engineering (With specialization in Sugar and Alcohol Technology)	B.Tech.	short	2016-17
2	Architecture	B.Arch.	Short	2017-18
3	Pharmacy	B.Pharm.	Short	2017-18
4	Food Technology Department	B.Tech. (Food Technology)	Medium	2019-20
5	Bio Technology Department	B.Tech. (Bio Technology)	Medium	2020-21
6	Hotel Management & Catering Technology	B.H.M.C.T.	Medium	2021-22
7	Fashion Technology	B.F.T.D.	Medium	2022-23
8	Civil Engineering	B.Tech.(Environmental Engineering)	Long	2023-24
9	Centre of Management Studies	ВВА	Long	2024-25
10	Agriculture Engineering Department	B.Tech. (Agriculture Engineering)	Long	2025-26
11	Applied Physics	M.Sc. Applied Physics-	Short	2017-18

		Integrated		
12	Applied Mathematics	M.Sc. Applied Mathematics – Integrated	Short	2018-19
13	Applied Chemistry	M.Sc. Applied Chemistry – Integrated	Short	2018-19
14	Electrical Engineering	M. Tech. (Power System)	Medium	2019-20
15	Electronics & Communication Engineering	M. Tech (Microwave Engineering)	Medium	2020-21
16	Computer Science &Engg	M. Tech (Cyber Security)	Long	2021-22
17	Mechanical Engineering	M. Tech. (Industrial Management Engineering)	Long	2024-25
18	Civil Engineering	M. Tech (Geo Tech.)	Medium	2022-23
19	Electronics & Communication Engineering	M. Tech (Micro –Electronics & VLSI Design)	Medium	2023-24
20	Architecture	M.Arch.	Medium	2023-24
21	Humanities & Social Science	M.Sc. Journalism & Mass Communication- Integrated	Long	2025-26
22	University Science Instrumentation Center	Centralised Instrumentation Facility	Audit/long	2017-18
23.	Center of Development for Technical Education (CDTE)	Continuing Education Programme for Teachers & Working Professionals	Long	2016-2025

7. Proposed Infrastructure and Human Resource Requirement

The available building infrastructure in the University is not sufficient to meet the requirements of the presently running courses. Further, due to reconstitution of MMM Engineering College into the University, there is critical requirement of strengthening the existing facilities, human resource and building infrastructure. Also, in view of the proposed short, medium and long term road map for the development of the University, there shall be requirement of building infrastructure along with teachers, officers and staff in phased manner.

The details of infrastructure requirement for meeting the present requirements along with expansion requirements is given in Annexures–3 & 4 under following heads with the expenditure of Rs. 119401.00 Lacs and is proposed to be provided as plan grant to the

University. The proposal for starting of new courses and increasing intake of existing courses is subject to creation of sufficient infrastructure in time.

- i. Main Buildings, Residences and Developments Works
- ii. Requirement for Each Department for 60 students Intake or as indicated therein
- iii. Equipment for different new laboratories and enhancement due to increase in intake

Starting Session 2015-2016 (Already Stared)

SI. No.	Name of Departments	Name of Courses	UG/PG/ Integrated/Ph.D	New Intake	Increase in Intake of existing Program
1.	Civil Engineering	B.Tech. Civil Engineering	UG	120	60
2.	Mech. Engineering	B.Tech. Mech. Engineering	UG	120	60
3.	Electrical Engineering	B.Tech. Electrical Engineering	UG	120	60
4.	Electronics & Comm. Engineering	B.Tech. Electronics & Comm. Engineering	UG	120	45
5.	Computer Sc. & Engineering	B.Tech. Computer Sc. & Engineering	UG	120	45

Starting Session 2016-2017(Already Stared)

SI. No.	Name of Departments	Name of Courses	UG/PG/ Integrated/Ph.D	New Intake	Increase in Intake of existing Program
	Chemical Engineering	B.Tech. Chemical		60	
1		Engineering with	UG		60
1.		Specialization in Sugar and			00
		Alcohol Technology			

Starting Session 2017-2018

SI. No.	Name of Departments	Name of Courses	UG/PG/ Integrated/Ph.D	New Intake	Increase in Intake of existing Program
1.	Architecture	B. Arch.	UG	40	40
2.	Pharmacy	B. Pharma	UG	60	60
3.	Food Technology Department	B. Tech. Food Technology	UG	60	60

Starting Session 2018-2019

SI. No.	Name of Departments	Name of Courses	UG/PG/ Integrated/Ph.D	New Intake	Increase in Intake of existing Program
1.	Agriculture Engineering Department	B. Tech. Agriculture Engineering	UG	60	60
2.	Hotel Management & catering Technology	B.H.M.C.T.	UG	60	60
3.	Fashion Technology	B.F.T.D.	UG	60	60

Starting Session 2019-2020

SI. No.	Name of Departments	Name of Courses	UG/PG/ Integrated/Ph.D	New Intake	Increase in Intake of existing Program
1.	Civil Engineering	B. Tech. Environmental Engineering	UG	60	60
2.	Centre of Management Studies	B.B.A.	UG	60	60
3.	Applied Physics	M.Sc. Applied Physics - Integrated	PG	30	30

Starting Session 2020-2021

SI. No.	Name of Departments	Name of Courses	UG/PG/ Integrated/Ph.D	New Intake	Increase in Intake of existing Program
1.	Applied Mathematics	M.Sc. Applied Mathematics- Integrated	PG	30	30
2.	Electrical Engineering	M. Tech Power system	PG	18	18
3.	Electronics & Communication Engineering	M. Tech Micro-Electronics & VLSI	PG	18	18

SI. No.	Name of Departments	Name of Courses	UG/PG/ Integrated/Ph.D	New Intake	Increase in Intake of existing Program
1.	Applied Chemistry	M.Sc. Applied Chemistry - Integrated	PG	30	30
2.	Mechanical Engineering	M. Tech Industrial Management Engineering	PG	18	18
3.	Computer Science Engineering	M.Tech. (Cyber Security)	PG	18	18

Starting Session 2022-2023

SI. No.	Name of Departments	Name of Courses	UG/PG/ Integrated/Ph.D	New Intake	Increase in Intake of existing Program	
1.	Bio Technology Department	B. Tech. Bio Technology	UG	60	60	
2.	Humanities & Social Sciences	M.Sc. – Journalism & Mass Communication-Integrated	PG	30	30	

Starting Session 2023-2024

SI. No.	Name of Departments	Name of Courses	UG/PG/ Integrated/Ph.D	New Intake	Increase in Intake of existing Program
1.	Architecture	M.Arch.,	PG	18	18

Detail of Faculty Intake

Annexure-1/A

SI. No 1 2 3	Name of Departments Civil Engineering Mech. Engineering Electrical Engineering	Name of Courses B.Tech(CE) B.Tech(Env.) M.Tech Ph.D. B.Tech M.Tech	UG/PG/ Integrated / Ph.D UG UG PG Ph.D.	Present Intake	2014-15	2015 P		students d 2010 P		2017-	18	201	8-19	1	19-20
No 1 2	Civil Engineering Mech. Engineering	B.Tech(CE) B.Tech(Env.) M.Tech Ph.D. B.Tech	/ Ph.D UG UG PG	60	240	Р								1	19-20
2	Mech. Engineering	B.Tech(CE) B.Tech(Env.) M.Tech Ph.D. B.Tech	UG UG PG	-	240	•	N	D	N	_				+	
2	Mech. Engineering	B.Tech(Env.) M.Tech Ph.D. B.Tech	UG PG	-		240		F	14	P	N	P	N	P	N
		M.Tech Ph.D. B.Tech	PG			240	60	300	60	360	60	420	60	480	-
		Ph.D. B.Tech		70	-	-	-		-	-	-	-	-	-	60
		B.Tech	Ph.D.	72	144	144	-	144	-	144	-	144	-	144	-
				-	-	-	6	6	6	12	6	18	-	18	-
3	Electrical Engineering	M.Tech	UG	60	240	240	60	300	60	360	60	420	60	480	-
3	Electrical Engineering		PG	36	72	72	-	72	-	72	-	72	-	72	-
3	Electrical Engineering	Ph.D.	Ph.D.	-	-	-	6	6	6	12	6	18	-	18	-
		B.Tech	UG	60	240	240	60	300	60	360	60	420	60	480	-
		M.Tech	PG	36	72	72	-	72	-	72	-	72	-	72	-
		Ph.D.	Ph.D.	-	-		6	6	6	12	6	18	-	18	-
4	Electronics & Comm.	B.Tech	UG	75	300	300	45	345	45	390	45	435	45	480	
	Engineering	M.Tech	PG	36	72	72	-	72	-	72	-	72	-	72	-
		Ph.D.	Ph.D.	-	-	-	6	6	6	12	6	18	-	18	
5	Computer Science &	B.Tech	UG	75	300	300	45	345	45	390	45	435	45	480	-
	Engineering	M.Tech	PG	36	72	72	-	72	-	72	-	72	-	72	-
		Ph.D	Ph.D.	-	-	-	6	6	6	12	6	18	-	18	-
6	Chemical Engineering	B.Tech	UG	-	-	-	-	-	60	60	60	120	60	180	60
7	Computer Applications	MCA	PG	60	180	180	-	180	-	180	1	180	-	180	
8	Centre for Management Studies	MBA	PG	60	120	120	-	120	-	120	-	120	-	120	-
		BBA	UG	-	-	-	-	-	-	-	-	-	-	-	60
9	Department of Architecture	B.Arch	UG	-	-	-	-	-	-	-	40	40	40	80	40
		M.Arch	PG	-	-	-	-	-	-	-	-	-	-	-	-
10	Department of Pharmacy	B. Pharma	UG	-	-	-	-	-	-	-	60	60	60	120	60
11	Food Technology	B.Tech	UG	-	-	-	-	-	-	-	60	60	60	120	60
12	Agricultural Engineering.	B.Tech	UG	-	-	-	-	-	-	-	-	-	60	60	60
13	Hotel Mgmt& catering Tech.	B.Tech	UG	-	=	-	-	-	-	-	-	-	60	60	60
14	Fashion Technology	B.Tech	UG	-	-	-	-	-	-	-	-	-	60	60	60
15	Applied Mathematics	M.Sc.	Integrated		-	-	-	-	-	-	-	-	-	-	
		Ph.D	Ph.D		-	-	2	2	2	4	2	6	-	6	-
16	Applied Physics	M.Sc.	Integrated		-	-	-	-	-	-	-	-	-	-	30
		Ph.D	Ph.D			-	2	2	2	4	2	6	-	6	-
17	Applied Chemistry	M.Sc.	Integrated		-	-	-	-	-	-	-	-	-	-	-
	,	Ph.D	Ph.D		_	_	2	2	2	4	2	6	_	6	
18	Humanities & Social Sciences	-	-		_							0		0	
10		_	-		-	-	-	-	-	-	-	-	-	-	-
	Journalism & Mass Communication	M.Sc.	Integrated		-	-	-	-	-	-	-	-	-	-	-
19	Bio Technology	B.Tech	UG		_		_	_		_	_	_		_	
-5	Бо тесппоюду	D. ICCII	- 50	*1:15	1620	1620	270	1890	330	2220	450	2670	630	3300	510
\rightarrow				*1:12	432	432	0	432	0	432	0	432	030	432	0
\rightarrow	P - Present Students			*1:10	0	0	0	0	0	0	40	40	40	80	40
-+	N - New Students (Intake)			PhD	0	0	36	36	36	72	36	108	0	108	0
-+	*Teacher - Student ratio			Total	2052	2052	306	2358	366	2724	526	3250	670	3920	550
- 				. 0 (01	Total=2052	Total-=		Total-		Total=3			=3920		I=4470

Detail of Student Intake

Annexure-1/B

			UG/PG/	Present			Total	No. of stu	idents du	ie to prop	osed new	course/	increase	in intake		
SI.	Name of Departments	Name of	Integrated		2020	0-21	202	1-22	202	2-23	2023-	24	202	24-25	20	25-26
No	•	Courses	/ Ph.D		Р	N	Р	N	Р	N	Р	N	Р	N	Р	N
1	Civil Engineering	B.Tech(CE)	UG	120	480	-	480	-	480	-	480	-	480	-	480	-
		B.Tech(Env.)	UG	60	60	60	120	60	180	60	240	-	240	-	240	-
		M.Tech	PG	72	144	-	144	i	144	-	144	-	144	-	144	-
		Ph.D.	Ph.D.	6	18	-	18	ı	18	-	18	-	18	-	18	-
2	Mech. Engineering	B.Tech	UG	120	480	-	480	-	480	-	480	-	480	-	480	-
		M.Tech	PG	36	72		72	18	90	18	108	-	108	-	108	-
		Ph.D.	Ph.D.	6	18	-	18	-	18	-	18	-	18	-	18	-
3	Electrical Engineering	B.Tech	UG	120	480	-	480	-	480	-	480	-	480	-	480	-
		M.Tech	PG	36	72	18	90	18	108	-	108	-	108	-	108	-
		Ph.D.	Ph.D.	6	18	-	18	-	18	-	18	-	18	-	18	-
4	Electronics & Comm.	B.Tech	UG	120	480	-	480	-	480	-	480	-	480	-	480	
	Engineering	M.Tech	PG	36	72	18	90	18	108	-	108	-	108	-	108	-
		Ph.D.	Ph.D.	6	18	-	18	-	18	-	18	-	18	-	18	-
5	Computer Science &	B.Tech	UG	120	480	-	480	-	480	-	480	-	480	-	480	-
	Engineering	M.Tech	PG	36	72		72	18	90	18	108	-	108	-	108	-
		Ph.D	Ph.D.	6	18	-	18	ì	18	-	18	-	18	-	18	-
6	Chemical Engineering	B.Tech	UG	60	240	-	240	-	240	-	240	-	240	-	240	-
7	Computer Applications	MCA	PG	60	180	-	180	-	180	-	180	-	180	-	180	
8	Centre for Management Studies	MBA	PG	60	120	-	120	1	120	-	120	-	120	-	120	-
		BBA	UG	60	60	60	120	60	180	-	180	-	180	-	180	-
09	Department of Architecture	B.Arch	UG	40	120	40	160	40	200	-	200	-	200	-	200	-
		M.Arch	PG	-	-	-	-	-	-	-	-	18	18	18	36	-
10	Department of Pharmacy	B. Pharma	UG	60	180	60	240	-	240	-	240	-	240	-	240	-
11	Food Technology	B.Tech	UG	60	180	60	240	-	240	-	240	-	240	-	240	-
12	Agricultural Engineering.	B.Tech	UG	60	120	60	180	60	240	-	240	-	240	-	240	-
13	Hotel Mgmt& catering Tech.	B.Tech	UG	60	120	60	180	60	240	-	240	-	240	-	240	-
14	Fashion Technology	B.Tech	UG	60	120	60	180	60	240	-	240	-	240	-	240	-
	Applied Mathematics	M.Sc.	Integrated	30	-	30	30	30	60	30	90	30	120	30	150	-
		Ph.D	Ph.D	2	6	-	6	-	6	-	6	-	6	-	6	-
	Applied Physics	M.Sc.	Integrated	30	30	30	60	30	90	30	120	30	150	-	150	-
		Ph.D	Ph.D	2	6	-	6	-	6	-	6	-	6	-	6	-
12	Applied Chemistry	M.Sc.	Integrated	30	-	-	-	30	30	30	60	30	90	30	120	30
	,	Ph.D	Ph.D	2	6	_	6	_	6	_	6	_	6	_	6	_
13	Humanities & Social Sciences	-	-	-	-	_	-	_	-	_	-	-	-	_	-	_
13	Journalism & Mass	M.Sc.		30												
	Communication	171.50.	Integrated	30	-	-	-	-	-	30	30	30	60	30	90	30
17	Bio Technology	B.Tech	UG	60	-	-	-	-	-	60	60	60	120	60	180	60
	<u> </u>		-	*1:15	3810	480	4290	390	4680	240	4920	180	5100	150	5250	150
				*1:12	432	36	468	72	540	36	576	0	576	0	576	0
	P - Present Students			*1:10	120	40	160	40	200	0	200	18	218	18	236	0
	N - New Students (Intake)			PhD	108	0	108	0	108	0	108	0	108	0	108	0
	*Teacher - Student ratio			Total:	4470	556	5026	502	5528	276	5804	198	6002	168	6170	150
					Total-			=5528		-=5804	Total=6			l=6170		l=6220

Faculty Requirement for Existing Student Population in Session 2016-17

	Student	Faculty	Drofossor	Associate	Assistant
	Population	Required	Professor	Professor	Professor
For ratio 1:15 (UG)	2220	148	16	33	99
For ratio 1:12 (PG)	432	36	12	12	12
Total:	2652	184	28	45	111

Faculty Requirement for Increased Student Population in Session 2017-18

	Student	Faculty	Professor	Associate	Assistant
	Population	Required		Professor	Professor
For ratio 1:15 (UG)	450	30	3	7	20
For ratio 1:12 (PG)	0	0	0	0	0
For ratio 1:10 (Arch)	40	4	0	1	3
	Total:	34	3	8	23

Faculty Requirement for Increased Student Population in Session 2018-19

	Student	Faculty	Professor	Associate	Assistant
	Population	Required		Professor	Professor
For ratio 1:15 (UG)	630	42	5	9	28
For ratio 1:12 (PG)	0	0	0	0	0
For ratio 1:10 (Arch)	40	4	1	1	2
	Total:	46	6	10	30

Faculty Requirement for Increased Student Population in Session 2019-20

	Student	Faculty	Professor	Associate	Assistant
	Population	Required		Professor	Professor
For ratio 1:15 (UG)	510	34	4	7	23
For ratio 1:12 (PG)	0	0	0	0	0
For ratio 1:10 (Arch)	40	4	0	1	3
	Total	38	4	8	26

Faculty Requirement for Increased Student Population in Session 2020-21

	Student	Faculty	Professor	Associate	Assistant
	Population	Required		Professor	Professor
For ratio 1:15 (UG)	480	32	4	7	21
For ratio 1:12 (PG)	36	3	1	1	1
For ratio 1:10 (Arch)	40	4	0	1	3
	Total	39	5	9	25

Faculty Requirement for Increased Student Population in Session 2021-22

	Student	Faculty	Professor	Associate	Assistant
	Population	Required		Professor	Professor
For ratio 1:15 (UG)	390	26	3	6	17
For ratio 1:12 (PG)	72	6	2	2	2
For ratio 1:10 (Arch)	40	4	1	1	2
	Total	36	6	9	21

Faculty Requirement for Increased Student Population in Session 2022-23

	Student	Faculty	Professor	Associate	Assistant
	Population	Required		Professor	Professor
For ratio 1:15 (UG)	240	16	2	3	11
For ratio 1:12 (PG)	36	3	1	1	1
For ratio 1:10 (Arch)	0	0	0	0	0
	Total	19	3	4	12

Faculty Requirement for Increased Student Population in Session 2023-24

	Student	Faculty	Professor	Associate	Assistant
	Population	Required		Professor	Professor
For ratio 1:15 (UG)	180	15	1	3	11
For ratio 1:12 (PG)	18	2	0	1	1
For ratio 1:10 (Arch)	0	0	0	0	0
	Total	17	1	4	12

Faculty Requirement for Increased Student Population in Session 2024-25

	Student	Faculty	Professor	Associate	Assistant
	Population	Required		Professor	Professor
For ratio 1:15 (UG)	150	10	1	2	7
For ratio 1:12 (PG)	18	1	1	0	0
For ratio 1:10 (Arch)	0	0	0	0	0
	Total	11	2	2	7

Faculty Requirement for Increased Student Population in Session 2025-26

	Student	Faculty	Professor	Associate	Assistant
	Population	Required		Professor	Professor
For ratio 1:15 (UG)	150*	10	1	2	7
For ratio 1:12 (PG)	0	0	0	0	0
For ratio 1:10 (Arch)	0	0	0	0	0
	Total	10	1	2	7

Yearly Faculty Requirements

Faculty Requirements

	Curr	Current Position			Yearly Requirement							
	Requirement	Existing	Shortage	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
Professor	28	14	14	3	6	4	5	6	3	1	2	1
Asso Professor	45	34	11	8	10	8	9	9	4	4	2	2
Asstt Professor	111	74	37	23	30	26	25	21	12	12	7	7

Residential Requirements

Short Term Requirements (up to 2017-18)

Amount in Lacs of Rs

	Existing	Total	Requirement	Units	Rate per	Amount
	· ·	Population	•		unit	
Faculty Residence	58	218	156	156	50.00	7800.00
Hostel(Boys)*	1940	2600	660	3(240	1000.00	3000.00
Hostel(Boys)	1940	2000	000	Capacity)		
Hostel(Girls)*	445	650	205	2(100	500.00	1000.00
Hostel(Giris)	443	030	205	Capacity)	500.00	1000.00
						11800.00

^{*}Including Under Construction

Medium Term Requirements (up to 2021-22)

Amount in Lacs of Rs

	Existing	Total Population	Requirement	Units	Rate per unit	Amount
Faculty Residence	218	377	159	159	50.00	7950.00
Hostel(Boys)	2600	4422	1822	6(240 Capacity)	1000.00	6000.00
Hostel(Girls)	650	1106	456	5(100 Capacity)	500.00	2500.00
						16450.00

Long Term Requirements (up to 2025-26)

Amount in Lacs of Rs

	Existing	Total Population	Requirement	Units	Rate per unit	Amount
Faculty Residence	377	434	57	57	50.00	2850.00
Hostel(Boys)	4422	4976	554	3(240 Capacity)	1000.00	3000.00
Hostel(Girls)	1106	1244	138	2(100 Capacity)	500.00	1000.00
						6850.00

Main Buildings, Residences and Developments Works
(These estimates were given by U.P. RAJKIYA NIRMAN NIGAM LTD. and may change)

Sr. No.	Name of Work	No. of	Plinth Area in (m ²) –	Cost in (Lacs)
		Units	Approx.	Approx
	(a) Main Building			
1.	Central Administrative Office	01		
2.	Examination Center	01		
3.	Examination Controller			
4.	Library Building	01	19000.00	10325.000
5.	Placement Centre	01		
6.	Alumni Centre	01		
7.	QIP Centre (i.e. Continuing Education Centre)	01		
8.	Meeting Hall	01		
	(b) Residences			
9.	Vice-Chancellor Residence	01	364.32	85.320
10.	Type-IV	200	38908.50	7355.00
11.	Type-III	50	4924.50	887.80
12.	Type-II	30	2077.00	374.50
15.	Guest House (20 Suits)	01	3858.00	1252.700
17.	Visitor Hostel for Short Courses – 50 Capacity	01	6287.25	2357.790
18.	Play Grounds	01	L.S.	25.000
19.	Students Activity Centre	01	1360.00	562.850
20.	Auditorium for 2000 Capacity	01	5800.00	2262.300
21.	Health Centre 50 Bedded	01	1781.50	736.100
22.	NCC/NSS Office	01	287.60	304.970
23.	Stadium & Swimming Pool	01	3000.00	836.500
24.	Community Centre Shoprite	01	1260.00	416.350
25.	Bank Building, Post Office, Railway Reservation Counter etc.	01	2465.00	825.00
26.	Open Air Theater 01	01	1800.00	15.850
	(c) Development Works			
27.	Renovation of Existing Building	L.S.	L.S.	1750.60
28.	Boundary Wall of the Campus	4625	4625	256.00
29.	Internal Road, Water Supply &O.H.T.	14000	14000	7000.00
30.	Sewerage System with STP			1180.00
31.	External Lighting on The Road, earthling etc.	500	500	186.96
32.	Electric Sub Station	01	01 No.	596.85
33.	Air Conditioning etc.	01	L.S.	1178.15
(i)20% fu	rniture etc., (ii) 2% Contingent Grant, (iii) (-)		Total	40771.59
	o Nigam working , (iv) (+) 125% Centage		20% furniture etc.	8154.318
	(v) 01% Labourcess		Grand Total	48925.91

Requirement for Each Department for 120 students Intake

(These estimates were given by U.P. RAJKIYA NIRMAN NIGAM LTD. and may change)

SI. No.	Name of Work	No. of Units	Plinth Area in Sqm. in (Approx)	Rate in Rs. Per Sqm. in (Approx)	Cost in (Lacs) Approx
1.	HOD office + Office + Bath Room	01	75.00	27,500.00	20.265
2.	Class Room 150 Capacity	04	235.00	22,500.00	211.500
3.	Class Room 75 Capacity	04	125.00	22,500.00	112.500
4.	Tutorial Room 40 Capacity	08	65.00	22,500.00	117.000
5.	P.G. Class Room 30 capacity	08	55.00	22,500	99.000
6.	Departmental Labs	09	135	22,500.00	273.375
7.	Departmental Library	01	135.00	22,500.00	30.375
8.	Faculty Cabin	30	18.00	23,500.00	126.900
9.	Common Room (Girl)	01	115.00	24,500.00	28.175
10.	Common Room (Boys)	01	115.00	24,500.00	28.175
11.	Meeting Room (40 Person) Attached with HOD Office + Bathroom	01	80.00	26,500.00	21.20
12.	Seminar Room 150 Capacity including Pantry Room	01	235.00	28,800.00	67.680
13.	Vehicle Parking	01	L.S.	L.S	20.00
				Total	1156.505
14.	Furniture Etc.	-	20% of Rs. 1156.505		231.301
				Grand Total	1387.806
				Say Rs.	1388.00 Lacs.

Requirement for Each Department for 60 students Intake

(For Grant Required in 2015)

(These estimates are as per the rates of 2015 given by U.P. RAJKIYA NIRMAN NIGAM LTD.)

Sr. No.	Name of Work	No. of Units	Plinth Area in Sqm. in (Approx)	Rate in Rs. Per Sqm. in (Approx)	Cost in (Lacs) Approx
1.	HOD office + Office + Bath Room	1	75	27,500.00	20.625
2.	Class Room 150 Capacity	1	235	22,500.00	52.875
3.	Class Room 75 Capacity	4	125	22,500.00	112.5
4.	Tutorial Room 40 Capacity	4	65	22,500.00	58.5
5.	P.G. Class Room 30 capacity	4	55	22,500.00	49.5
6.	Departmental Labs	9	135	22,500.00	273.375
7.	Departmental Library	1	135	22,500.00	30.375
8.	Faculty Cabin	30	18	23,500.00	126.9
9.	Common Room (Girl)	1	115	24,500.00	28.175
10.	Common Room (Boys)	1	115	24,500.00	28.175
11.	Meeting Room (30 Person) Attached with HOD Office + Bathroom	1	65	26,500.00	17.225
12.	Seminar Room 150 Capacity including Pantry Room	1	235	28,800.00	67.68
13.	Vehicle Parking	01	L.S.	L.S	15.00
				Total	880.905
14.	Furniture Etc.	-	20% of Rs. 880.905		176.181
				Grand Total	1057.09

Requirement for Each Department for 60 students Intake

(For Grant Required in 2018)

(These estimates are as per the rates of 2015 (with 30% increase) given by U.P. RAJKIYA NIRMAN NIGAM LTD.)

Sr. No.	Name of Work	No. of Units	Plinth Area in Sqm. in (Approx)	Rate in Rs. Per Sqm. in (Approx)	Cost in (Lacs) Approx
1.	HOD office + Office + Bath Room	1	75	35750	26.81
2.	Class Room 150 Capacity	1	235	29250	68.74
3.	Class Room 75 Capacity	4	125	29250	146.25
4.	Tutorial Room 40 Capacity	4	65	29250	76.05
5.	P.G. Class Room 30 capacity	4	55	29250	64.35
6.	Departmental Labs	9	135	29250	355.39
7.	Departmental Library	1	135	29250	39.49
8.	Faculty Cabin	30	18	30550	164.97
9.	Common Room (Girl)	1	115	31850	36.63
10.	Common Room (Boys)	1	115	31850	36.63
11.	Meeting Room (30 Person) Attached with HOD Office + Bathroom	1	65	34450	22.39
12.	Seminar Room 150 Capacity including Pantry Room	1	235	37440	87.98
13.	Vehicle Parking	01	L.S.	L.S	19.50
				Total	1145.18
14.	Furniture Etc.	-	20% of Rs. 1145.18		229.04
				Grand Total	1374.21

Total Expenditure for Main Buildings, New Departments and Lecture Hall Complex

Infrastructure Requirement for the courses up to 2017-18, Grant Required in 2016

Name of Work	No. of	Cost per unit	Cost in (Rs. Lacs)
	Units	(in Rs. Lacs)	Approx
Requirement for Each Department for 120 students Intake including applied Sciences	06	1388.00	8328.00
Requirement for Each Department for 60 students Intake	04	1057.09	4228.36
Lecture Hall Complex			
10 Nos. 150 Students Capacity	01	1241.00	1241.00
02 Nos. 120 Students Capacity			
Main Building, Residence & Development	01	40771.59	40771.59
Work			
Furniture	20%	of Rs. 40771.59	8154.318
		Total:	62723.27
12.5% Centage charge,2% Contingent	15.5% of Rs. 70440.47		9722.107
Grant& 1% Labourcess			3/22.10/
		Grand Total:	72445.37

Note: Part of Grant partially released

Total Expenditure for New Departments and Lecture Hall Complex

<u>Infrastructure Requirement for the courses up 2021-22, Grant Required in 2018</u>

Name of Work	No. of Units	Cost per unit (in Rs. Lacs)	Cost in (Rs. Lacs) Approx
Requirement for Each Department for 60 students Intake	6	1374.21	8245.26
Lecture Hall Complex 10 Nos. 150 Students Capacity 02 Nos. 120 Students Capacity	1	1241.00	1241.00
12.5% Centage charge,2% Contingent Grant& 1% Labourcess	15.5% of Rs. 9486.26		1470.37
		Grand Total:	10956.63

Total Expenditure for New Departments and Lecture Hall Complex

Infrastructure Requirement for the courses up 2025-26, Grant Required in 2022

Name of Work	No. of Units	Cost per unit (in Rs. Lacs) Additional 30% of 2018	Cost in (Rs. Lacs) Approx
Requirement for Each Department for 60 students Intake	6	1786.47	10718.82
Lecture Hall Complex 10 Nos. 150 Students Capacity 02 Nos. 120 Students Capacity	1	1613.3	1613.3
12.5% Centage charge,2% Contingent Grant& 1% Labourcess		15.5% of Rs. 12332.12	1911.48
		Grand Total:	14243.6

Expenditure On Laboratory Equipments For New Courses / Increase in Intake

Short Term Requirements (up to 2017-18)

Sl. No.	Departments	Nos.	No. Of Labs (9 In Each Department)	Expenditure @ Rs. 35 Lacs for Each Lab
1.	New Departments	4	36	1260
2.	Departments With Increase Intake	5	45	1575
	Total	9	81	2835

Medium Term Requirements (up to 2021-22)

SI. No.	Departments	Nos.	No. Of Labs (9 In Each Department)	Expenditure @ Rs. 50 Lacs for Each Lab
1.	New Departments	6	54	2700
	Total	6	54	2700

Long Term Requirements (up to 2025-26)

SI. No.	Departments	Nos.	No. Of Labs (9 In Each Department)	Expenditure @ Rs. 70 Lacs for Each Lab
1.	New Departments	6	54	3780
	Total	6	54	3780