BIRLA INSTITUTE OF TECHNOLOGY- MESRA, RANCHI
NEWCOURSE STRUCTURE - *To be effective from academic session 2018- 19*
Based on CBCS & OBE model
Recommended scheme of study for all M.Tech Programmes

M. TECH. REMOTE SENSING

Semester / Session of Study (Recomended)	Course Level	Category of course	Course Code	Courses	Mode of delivery & credits *L-Lecture; T-Tutorial;P-Practicals*			Total Credits *C- Credits*
					L (Periods/ week)	T (Periods/ week)	P (Periods/ week)	C
FIRST / Monsoon	**FIFTH**			**THEORY**				
		Programme Core (PC)	RS 501	Principles of Remote Sensing and Digital Satellite Image Processing	3	0	0	3
			RS 502	Geographic Information System and Satellite Navigation System	3	0	0	3
		Programme Elective (PE)	RS * ##	Programme Elective - I	3	0	0	3
		Open elective (OE)		Open Elective (OE) 1	3	0	0	3
	FIFTH			**LABORATORIES**				
		Programme Core (PC)	RS 503	Remote Sensing and Digital Satellite Image Processing Laboratory	0	0	4	2
			RS 504	Geographic Information System &Satellite Navigation System Laboratory	0	0	4	2
		Programme Elective (PE)	RS * ##	Programme Elective – I Laboratory	0	0	4	2
				TOTAL				**18**
SECOND/ Spring	**FIFTH**			**THEORY**				
		Programme Core (PC)	RS 511	Aerial and Satellite Photogrammetry & Image Interpretation	3	0	0	3
			RS 512	Advanced Remote Sensing and Geospatial Modelling	3	1	0	4
		Programme Elective (PE)	RS * $$	Programme Elective - II	3	0	0	3
		Open Elective (OE)		Open Elective (OE) 2	3	0	0	3
	FIFTH			**LABORATORIES**				
		Programme Core (PC)	RS 513	Aerial and Satellite Photogrammetry & Image Interpretation Laboratory	0	0	4	2
			RS 514	Advanced Remote Sensing and Geospatial Modelling Laboratory	0	0	4	2
			RS 515	Programming and Customisation in geospatial domain Laboratory	0	0	4	2
		Programme Elective (PE)	RS * $$	Programme Elective – II Laboratory	0	0	4	2
				TOTAL				**21**
				TOTAL FOR FIFTH LEVEL				**39**
THIRD / Monsoon	**SIXTH**			**THEORY**				
		Programme Core (PC)	RS 600	Thesis part – I				8
			RS 602	Data Sources, Statistics and Research Methods in Geospatial Domain	3	1	0	4
		Open Elective (OE)		Open Elective (OE) 3/ MOOC	3	0	0	3
				TOTAL				**15**
FOURTH/ Spring	**SIXTH**	Programme Core (PC)	RS 650	Thesis part – II				16
				TOTAL				**16**
				TOTAL FOR SIXTH LEVEL				**31**
				GRAND TOTAL FOR M.TECH PROGRAMME (39 + 31)				**70**

Elective 1 (Candidate need to take One theory +associated laboratory from Group 1)
GROUP 1

RS 505	Remote Sensing in Agriculture & Forestry
RS 506	Remote Sensing in Disaster Management
RS 507	Remote Sensing in Hydrology & Water Resources
RS 508	Remote Sensing in Agriculture & Forestry Laboratory
RS 509	Remote Sensing in Disaster Management Laboratory
RS 510	Remote Sensing in Hydrology & Water Resources Laboratory

$$ Elective 2 (Candidate need to take One theory +associated laboratory from Group 2)
GROUP 2

RS 516	Remote Sensing in Snow and Glacier Hydrology
RS 517	Remote Sensing in Climate Change and Environmental Impact Assessment
RS 518	Remote Sensing in Snow and Glacier Hydrology Laboratory
RS 519	Remote Sensing in Climate Change and Environmental Impact Assessment Laboratory

Open Elective refers to subjects hosted by other Departments, and student need to take a subject (having appropriate credit) of their own choice.

Elective 1 (Candidate need to take One theory +associated laboratory from Group 1)
GROUP 1

RS 505	Remote Sensing in Agriculture & Forestry
RS 506	Remote Sensing in Disaster Management
RS 507	Remote Sensing in Hydrology & Water Resources

$$ Elective 2 (Candidate need to take One theory +associated laboratory from Group 2)
GROUP 2

RS 516	Remote Sensing in Snow and Glacier Hydrology
RS 517	Remote Sensing in Climate Change and Environmental Impact Assessment

DEPARTMENT OF REMOTE SENSING
PROGRAMME ELECTIVES (PE) **
OFFERED FOR LEVEL 5-6 of M.Tech. In REMOTE SENSING

PE / LEVEL	Code no.	Name of the PE courses	Prerequisites courses with code	L	T	P	C
		Programme Elective -I					
PE/5 (MO)	RS 505	Remote Sensing in Agriculture & Forestry	RS 501 & RS 502	3	0	0	3
PE/5 (MO)	RS 506	Remote Sensing in Disaster Management		3	0	0	3
PE/5 (MO)	RS 507	Remote Sensing in Hydrology & Water Resources		3	0	0	3
PE/5 (MO)	RS 508	Remote Sensing in Agriculture & Forestry Laboratory	RS 503 & RS 504	0	0	4	2
PE/5 (MO)	RS 509	Remote Sensing in Disaster Management Laboratory		0	0	4	2
PE/5 (MO)	RS 510	Remote Sensing in Hydrology & Water Resources Laboratory		0	0	4	2
		Programme Elective - II					
PE/5 (SP)	RS 516	Remote Sensing in Snow and Glacier Hydrology	RS 501, RS 502 & RS 507	3	0	0	3
PE/5 (SP)	RS 517	Remote Sensing in Climate Change and Environmental Impact Assessment	RS 501 & RS 502	3	0	0	3
PE/5 (SP)	RS 518	Remote Sensing in Snow and Glacier Hydrology Laboratory	RS 503, RS 504 & RS 510	0	0	4	2
PE/5 (SP)	RS 519	Remote Sensing in Climate Change and Environmental Impact Assessment Laboratory	RS 503 & RS 504	0	0	4	2

** PROGRAMME ELECTIVES TO BE OPTED ONLY BY THE DEPARTMENT STUDENTS

OE / LEVEL	Code no.	Name of the PE courses	Prerequisites courses with code	L	T	P	C
OE/5 (MO)							
OE/5 (MO)							
OE/5 (SP)							
OE/5 (SP)							

DEPARTMENT OF REMOTE SENSING
OPEN ELECTIVES (OE)*
OFFERED FOR LEVEL 5-6 of M.Tech in Remote Sensing

* OPEN ELECTIVES TO BE OPTED ONLY BY OTHER DEPARTMENT STUDENTS

Note: No Open elective is being offered in MO-2018 and SP-2018

BIRLA INSTITUTE OF TECHNOLOGY- MESRA, RANCHI
NEWCOURSE STRUCTURE - *To be effective from academic session 2018- 19*
Based on CBCS system & OBE model
Recommended scheme of study

PG (M.TECH REMOTE SENSING) PROGRAMME

S.No	Semester	Course Category	Credits	Total
1	FIRST	2 Programme Core (PC)	6	18
		1 Programme Elective (PE)	3	
		1 Open Elective (OE)	3	
		3 LABS (2 PC + 1 PE)	6	
2	SECOND	2 Programme Core (PC)	7	21
		1 Programme Elective (PE)	3	
		1 Open Elective (OE)	3	
		4 LABS (3 PC + 1 PE)	8	
3	THIRD	Research Project	8	15
		1 Programme Core (PC)	4	
		1 Open Elective (OE)	3	
4	FOURTH	Research Project	16	16
TOTAL				**70**

OE - Inter disciplinary

Research project can be interdisciplinary; Participation of parent dept may
be made mandatory
Other regulations