SCHOOL OF ELECTRONICS

PROGRAMME CODE: EL7B

PROGRAMME TITLE: M.Tech. Geo-Informatics

OBJECTIVES

- To create manpower in the broad area of GIS, Image Processing.
- To create skilled professionals having strong learning skills in the growing domains of interwoven Computer, Electronics, Civil and IT technology.
- To facilitate students to develop high-end engineering skills through advanced courses and specialization streams and also provide options for doing research
- To facilitate practical implementations of the ideas using modular research oriented projects

ELIGIBILITY

B.E. / B. Tech. or equivalent with min. 55% marks in Electronics/Electronics & Communication/Electronics & Instrumentation/Computer Science/Computer Engineering/ Information Technology or equivalent or M.Sc. Electronics/Electronics & Communication/Computer Science/Information Technology or MCA.

For candidates applying under sponsored seat category, a minimum two years working experience after qualifying degree is required. The candidates have to submit a certificate from the employer **strictly** in the prescribed Performa available on the website www.elex.dauniv.ac.inand a copy of PF number allotted.

AGE LIMIT: As per the directives of Government of Madhya Pradesh, there is no upper age limit for admission in the programme.

ADMISSION PROCEDURE

GATE qualified candidates will be preferred for admission. Admissions will be given as per GATE score. However, if seats are vacant due to non-availability of the GATE qualified candidates, then NON-GATE candidates will be admitted as per the merit developed on the basis of % of marks obtained in the qualifying examination.

The sponsored candidates will be admitted as per the merit developed on the basis of % of marks obtained in the following categories:

Category	Qualifying examination	Written Test	Interview	Service Experience*	Total
Max. Marks	100	50	30	20	200

* Service experience - 2 marks per year limited to max. 20 marks.

SEATS: 18 (reservation as per state Govt. rules).

S. No.	Name of Programme	Total No. of Seats	All India Seats			Sponsored	Eligible for AICTE Scholarship*			
			SC	ST	UR		Total	SC	ST	UR
1	M. Tech (Geo-Informatics)	18	01	02	10	05	13	01	02	10

***Scholarship is provided by AICTE through DBT (Direct Benefit Transfer). Candidates must note that the School/University does not take any responsibility in this regard.**

DURATION: Four Semesters (Two Years)

FEE STRUCTURE (2020-22)

For Regular Candidates

Semester	Academic Fee	Development & Maintenance Fee	Students' Services Fee		Examination Fee	Total (Rs.)	
			Boys	Girls		Boys	Girls
First	14500	5150	3300	3111	2500	29450	29261
Second	14500	5150	2911	2722	2500	25061	24872
Third	14500	5150	3300	3111	2500	25450	25261
Fourth	14500	5150	2911	2722	2500	25061	24872

For Sponsored Candidates

Semester	Academic Fee	Development & Maintenance Fee	Students' Services Fee		Examination Fee	Total (Rs.)	
			Boys	Girls		Boys	Girls
First	22000	4950	3300	3111	2500	36750	36561
Second	22000	4950	2911	2722	2500	32361	32172
Third	22000	4950	3300	3111	2500	32750	32561
Fourth	22000	4950	2911	2722	2500	32361	32172

- Caution money (Refundable) of Rs. 4000/- will be charged additionally in the first semester.
- Alumni Fee of Rs. 500/- will be charged extra in the first semester.
- If a student repeats a paper(s) in a semester, an additional fee of Rs.500/- per paper shall be payable.
- For NRI/ FN/ PIO Candidates, a fee of US$ 3500 Per Annum shall be payable on yearly basis. They will have to pay a refundable deposit of US$ 500 once at the time of admission.
- Hostel Fee and Central Library Fee will be extra.

PROGRAMME STRUCTURE (2020-22)

Semester - I — 32 Credits

Sr. No	Course Code	Course Name	Lecture (L)Hr	Tutorial (T)Hr	Practical (P)Hr	Credit
Core Subjects						
1	EL71104	Digital Signal Processing	3	1	0	4
2	EL71107	Geographic Information System-I	3	1	0	4
3	EL71108	Introduction to Remote Sensing	3	1	0	4
Electives: Discipline Centric*						
4	EL71101	Database Management Systems	3	1	0	4
5	EL71201	DBMS Lab	0	0	4	2
6	EL71203	System Programming Lab	0	0	4	2
7	EL71204	Digital Signal Processing Lab	0	0	4	2
8	EL71207	Geographic Information System-I Lab	0	0	4	2
Electives: Generic*						
9	EL71103	System Programming	3	1	0	4
10	EL71301	Comprehensive Viva Voce (Virtual)	0	0	4	2

Semester - II — 32 Credits

Sr .N	Course Code	Course Name	Lecture (L)Hr	Tutorial (T)Hr	Practical (P)Hr	Credit
Core Subjects						
1	EL72107	Geographic Information System-II	3	1	0	4
2	EL72109	Introduction to Photogrammetry	3	1	0	4
Electives: Discipline Centric*						
3	EL72106	Digital Image Processing	3	1	0	4
4	EL72110	Global Positioning Network	3	1	0	4
5	EL72201	Mobile System Programming Lab	0	0	4	2
6	EL72206	Digital Image Processing Lab	0	0	4	2
7	EL72207	Geographic Information System-II Lab	0	0	4	2
8	EL72401	Student Seminars	2	0	0	2
Electives: Generic*						
9	EL72101	Mobile System Programming	3	1	0	4
11	EL72301	Comprehensive Viva Voce (Virtual)	-	-	-	4

Semester - III — 12 Credits

Sr .N	Course Code	Course Name	Lecture (L)Hr	Tutorial (T)Hr	Practical (P)Hr	Credit
1	EL73501	Major Project Phase I	-	-	-	12

Semester - IV — 12 Credits

Sr .N	CourseCode	Course Name	Lecture (L)Hr	Tutorial (T)Hr	Practical (P)Hr	Credit
1	EL74501	Major Project Phase II	-	-	-	12

Total Credits — 88 Credits

Note: The above programme structure can be modified as per requirement from time to time in accordance with University Ordinance No. 14.

PROGRAMME OUTCOMES

1. Apply principles of Remote sensing and GIS to collect, map and retrieve spatial information
2. Plan, assess and evaluate natural and manmade systems using geospatial models
3. Use geospatial tools and techniques for hazard mitigation and resource planning
4. Pursue research and develop capabilities to handle multi-disciplinary field projects
5. Work in teams and demonstrate leadership skills with professional ethics.
6. Identify specific data and methodologies for effective mapping and evaluation of natural resources
7. Develop geospatial models and tools to address the social and engineering problems
8. Apply geospatial technologies for hazard mitigation and management
9. Design multi-criteria geospatial systems for decision making process
10. Work in a team using geospatial tools and environment to achieve project objectives Pursue lifelong learning for professional advancement.

JOB OPPORTUNITIES

Ability for employment

1. **Internship: Students may serve as internee in many** MNCs for completion of one year project work.
2. **Placement**
   (a) As R &D Design Engineer in the GIS application domain
   (b) As system engineer, system manager, analyst, consultancy in software companies
   (c) As faculty, educator in higher education
   (d) As Scientist and other govt R& D jobs

Ability for higher education and research in the areas of Embedded Systems, VLSI Design