

## SCHOOL OF ELECTRONICS

**PROGRAMME CODE: EL7C**

**PROGRAMME TITLE: M.Tech. Mobile Computing Technology**

### OBJECTIVES

- To create manpower in the broad area of Mobile Computing and Mobile System Programming
- To create skilled professionals having strong learning skills in the growing domains of interwoven Computer, Electronics 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.in](http://www.elex.dauniv.ac.in) and 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	All India Seats	Sponsored	Eligible for AICTE Scholarship*
--------	-------------------	--------------	-----------------	-----------	---------------------------------

## DEVI AHILYA VISHWAVIDYALAYA, INDORE

		Seats	SC	ST	UR		Total	SC	ST	UR
1	M. Tech (Mobile Computing Technology)	25	02	03	15	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)

# DEVI AHILYA VISHWAVIDYALAYA, INDORE

## Semester I

**32Credits**

Sr. No	Course Code	Course Name	Lecture (L) Hr	Tutorial (T) Hr	Practical (P) Hr	Credit
<b>Core Subjects</b>						
1	EL71109	Wireless Networks	3	1	0	4
2	EL71105	Embedded Microcontrollers	3	1	0	4
3	EL71102	Linux, Scripting and Networking	3	1	0	4
<b>Electives: Discipline Centric</b>						
4	EL71104/ EL71101	Digital Signal Processing/ Database Management Systems	3	1	0	4
<b>Electives: Generic</b>						
5	EL71103	System Programming	3	1	0	4
6	EL71205	Embedded Microcontroller Lab	0	0	4	2
7	EL71202	Linux Lab	0	0	4	2
8	EL71203	System Programming Lab	0	0	4	2
9	EL71204/ EL71201	Digital Signal Processing Lab/ DBMS Lab	0	0	4	2
10	EL71301	Comprehensive Viva Voce (Virtual)	-	-	-	4

## Semester II

**32 Credits**

Sr. No	Course Code	Course Name	Lecture (L) Hr	Tutorial (T) Hr	Practical (P) Hr	Credit
<b>Core Subjects</b>						
1	EL72108	Mobile Computing	3	1	0	4
2	EL72102	Real Time Systems	3	1	0	4
3	EL72103	Wireless Ad hoc Networks	3	1	0	4
<b>Electives: Discipline Centric</b>						
4	EL72106/ EL72104	Digital Image Processing/ Advanced Embedded Microcontroller-ARM	3	1	0	4
<b>Electives: Generic</b>						
5	EL72111	Wireless Computer Networks & IoT	3	1	0	4
6	EL72211	Wireless Computer Networks & IoT Lab	0	0	4	2
7	EL72202	Real Time Systems Lab	0	0	4	2
8	EL72203	Wireless Networks Lab	0	0	4	2
9	EL72206/ EL72204	Digital Image Processing Lab/ Advanced Embedded Microcontroller Lab	0	0	4	2
10	EL72301	Comprehensive Viva Voce (Virtual)	-	-	-	4

## Semester III

**12 Credits**

Sr. No	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. No	Course Code	Course Name	Lecture (L) Hr	Tutorial (T) Hr	Practical (P) Hr	Credit
1	EL74501	Major Project Phase II	-	-	-	12

**Total Credits**

**88Credits**

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

## PROGRAMME OUTCOMES

Mobile computing is human computer interaction by which computer is expected to be transported during normal usage. Mobile Computing involves mobile and wireless communication, mobile hardware and mobile software. Following are the programme outcomes

1. Addresses the modern data communication architecture evolution from several aspects
2. Learn the hardware and software requirement for Mobile Computing
3. Gain practical knowledge and theoretical insights in field of application, services and mobile networking
4. Exposure to the emerging field of Internet of Things

## 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 mobile 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 Mobile Computing, Wireless Communication**