SCHOOL OF ELECTRONICS

1. **PROGRAMME CODE:** EC1A
2. **PROGRAMME TITLE:** Certificate Course in Embedded Systems
3. **Objectives:**
   - To create a pool of technical experts working in Embedded system domain.
   - To impart theoretical as well as practical knowledge of Advanced Microcontrollers, VHDL and Digital Signal Processing.
4. **Eligibility:** Graduation or higher degree in Engineering/Sciences or equivalent in relevant discipline with minimum 65 % marks.
5. **Desirable Pre-requisite**: Knowledge of C/C++
6. **Age Limit:** No Age Limit
7. **Admission Procedure:**
   As decided by Devi Ahilya Vishwavidyalaya
8. **Seats:** 10
9. **Duration: One Semester** (Six Months) July-Dec.

10. Fee Structure (For year 2020)

Semester	Academic Fee	Development & Maintenance Fee	Students' Services Fee		Examination Fee	Total (Rs.)	
			Boys	Girls		Boys	Girls
First	3000	1200	3300	3111	2500	**10000**	**9811**

- Caution money (Refundable) of Rs. 1000/- will be charged additionally 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.
- Alumni fee of Rs.500 will be charged.

11. Learning Outcomes:

The major Learning outcomes envisaged are as:

1. To enable students to conceptualize design, analysis and implementation of embedded systems through modular projects, minor/ major projects and hands-on experiments.
2. To keep students abreast of state of art tools for the development and debugging of programs implemented on microcontrollers and DSPs.
3. To help them apply formal method, testing, verification, validation and simulation techniques and tools in order to engineer reliable and safe embedded systems

12. Curriculum/Scheme:

Semester I   **34 Credits**

Sr. No	Course Name	Lecture (L) Hr	Tutorial (T) Hr	Practical (P) Hr	Credit
1	Embedded Microcontrollers	3	1	--	4
2	Advanced Logic Design	3	1	--	4
3	System Programming	3	1	--	4
4	Linux Scripting and Networking	3	1	--	4
5	Digital Signal Processing	3	1	--	4
6	Embedded Microcontroller Lab	--	--	4	2
7	Advanced Logic Design Lab	--	--	4	2
8	Linux Lab	--	--	4	2
9	System Programming Lab	--	--	4	2
10	Digital Signal Processing Lab	0	0	4	2
11	Comprehensive Viva Voce (Virtual)	--	--	--	4
TOTAL					34

Note: The above scheme/course contents is subject to be modified as per need from time to time in accordance with University Ordinance No. 14.