1. **PROGRAMME CODE:** EC3A
2. **PROGRAMME TITLE:** PG Diploma 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: Two Semesters**

10. **Age Limit:** No Age Limit
11. **Admission Procedure:** As decided by Devi Ahilya Vishwavidyalaya
12. **Seats:** 10
13. **Duration: Two Semesters** (One Year)

Fee Structure for admission 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**
Second	3000	1200	2911	2722	2500	**9611**	**9422**

- 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

Learning Outcomes:

1. To practically apply gained theoretical knowledge in order to design, analyse and implement embedded systems
2. To acquire knowledge of and be able to use tools for the development and debugging of programs implemented on microcontrollers and DSPs.
3. To apply formal method, testing, verification, validation and simulation techniques and tools in order to engineer reliable and safe embedded systems

Curriculum:

SCHOOL OF ELECTRONICS

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 CREDIT				34

Semester II   30 Credits

Sr. No	Course Name	Lecture (L) Hr	Tutorial (T) Hr	Practical (P) Hr	Credit
1	VLSI Design Methodologies	3	1	--	4
2	Real Time Systems	3	1	--	4
3	Advanced Embedded Microcontroller - ARM	3	1	--	4
4	Mobile System Programming/ Digital Image Processing/ Wireless Computer Networks & IoT	3	1	--	4
5	VLSI Lab	--	--	4	2
6	Real Time Systems Lab	--	--	4	2
7	Advanced Embedded Microcontroller Lab	--	--	4	2
8	Mobile System Programming Lab / Digital Image Processing Lab / Wireless Computer Networks & IoT Lab	--	--	4	2
9	Student Seminars	2	--	--	2
10	Comprehensive Viva Voce (Virtual)	--	--	--	4
	TOTAL CREDIT				30

TOTAL   64 Credits

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