



ELECTRA IC.
Design & Verification



BAU
Bahçeşehir University

MASTER PROGRAMME OF ELECTRIC-ELECTRONICS

—

DIGITAL MICROCHIP DESIGN & VERIFICATION IN PARTNERSHIP WITH ELECTRA IC

Content Provider





Graduate School Management



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Ahmet JORGANXHIU

Title: Hardware Verification Director / Certified Training Instructor

Degree: İstanbul Technical University, Electronics and Communication Engineering

Given Course: Advanced Verification with UVM & Advanced Verification with SystemVerilog



Ateş BERNA

Title: Managing Partner / Certified Training Instructor

Degree: İstanbul Technical University, Electronics and Communication Engineering

M. Degree: İstanbul Technical University, Electronics and Communication Engineering
Boğaziçi University, Executive MBA

Given Course: Expert VHDL Design & Verification



İsmail Hakkı TOPCU

Title: Managing Partner / Certified Training Instructor

Degree: İstanbul Technical University, Electronics and Communication Engineering

M. Degree: İstanbul Technical University, Electronics and Communication Engineering

Given Course: Digital Design & Verification Essentials & Introduction to VHDL Design & Verification



Melike ATAY KARABALKAN

Title: Partner / Certified Training Instructor

Degree: Yıldız Technical University, Electronics and Communication Engineering

M. Degree: İstanbul Technical University, Electronic Engineering

Given Course: FPGA Design with Xilinx & Introduction to Advanced Verification



Lecturers



Soheil SALAHSHOUR

Degree: Hakim Sabzevari University

M. Degree: University of Sistan and Baluchestan, Applied Mathematics

PhD: Islamic Azad University

Given Course: MAT5101 - Engineering Mathematics



Şeref KALEM

Degree: Hacettepe University

M. Degree: Paris University, Physics Graduate Engineering

PhD: Paris University

Given Course: Research Methods and Ethics



Zafer İŞCAN

Degree: İstanbul Teknik University

M. Degree: İstanbul Teknik University

PhD: İstanbul Teknik University

Given Course: EEE5012 - Numerical Methods in Engineering



Program

Semester 1

Y1

Research Method and Ethic

Engineering Mathematics

1 Digital Design & Verification Essentials (Elective)

2 Introduction to VHDL Design & Verification (Elective)



Semester 2

Numerical Methods in Engineering

3 Expert VHDL Design & Verification (Elective)

4 FPGA Design with Xilinx (Elective)

5 Introduction to Advanced Verification (Elective)

Semester 3

6 Advanced Verification with SystemVerilog (Elective)

7 Advanced Verification with UVM (Elective)

Project

Y2



Y1





What does this programme cover?

This unique programme aims to give hands-on practice in Digital IC Design & Verification. It starts with the essentials of digital IC design and verification and continues by teaching entry, advanced and expert-level VHDL.

You will also learn designing with FPGAs which, in today's world, are becoming more and more complex, hence verification is of utmost importance for right-first-time chips. For that reason, the programme includes courses on TCL, SystemVerilog and UVM, which are widely used in the world of IC design and verification.





What further expertise and skills will I acquire?

Participants will be able to refresh their basic digital design skills, or if they have no background in digital IC design basics, they will be able to acquire them. This programme is for:

- **New graduate engineers embarking on a first project**
- **Engineers with limited practical experience in digital design**
- **Engineers from other disciplines (e.g., software design or analog design) re-training for digital design involvement**
- **Those requiring familiarisation with modern digital design techniques.**

Participants require no prior involvement in digital design projects or HDL knowledge, but should be familiar with the basic principles of digital electronics. 50% of the time involves hands-on practice for learning VHDL, FPGA design, SystemVerilog, UVM and TCL, so this programme will equip participants very well to join to a corporation working in digital IC design.





Which professional opportunities can I take up with this qualification?

The programme is delivered in partnership with ElectraIC – a Doulos Certified Training Partner. Doulos is a world-leading training services company and the courses included in this programme are delivered worldwide by Doulos and its certified partners and instructors.

After successfully completing the programme participants will be ready for many digital IC design and verification jobs, throughout the world, with this internationally recognised certification. Digital IC Design Engineers are in great demand in today's Semiconductor Industry, so participants will be perfectly equipped to jump-start their careers after completing this programme.

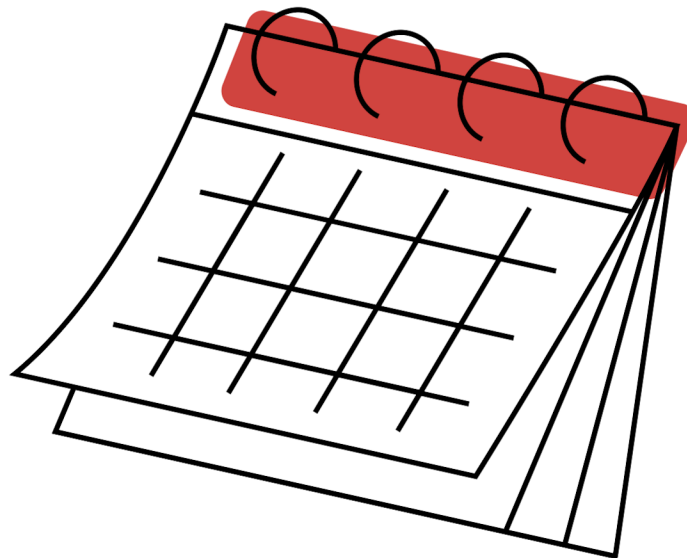




Important Dates



- You can refer to the academic calendar to find out the timing of all academic and non-academic activities and events at BAU that are of interest to you. You can access the academic calendar from [this link](#).





Course Sequence

- It is important that students follow the recommended course sequence for their program. Your program checklist will be a guide to this.
- Classes are only offered once a year. Please work with your advisor to keep on sequence with your program.
- Check with your Academic Advisor if you have any questions.





If you have any question regarding
the
academic content of the program,
contact with

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