

Curriculum Vitae Mehmet Can



Summary

Electrical engineer and university lecturer with over 10+ years of experience in analog electronics, control systems, physics, and mathematics.

- Driven to find the connection between theory and practice
- Analytic mind-set and approach
- Organized
- Structured
- Flexible
- Collegially

Personal details

Name : Mehmet
Surname : Can
Gender : Male
Address : Hoek van het IJ 3
Postal code, city : 8223 BH, Lelystad
City of birth : Istanbul (Turkey)
Date of birth : August 9, 1983
Nationalities : Turkish and Dutch
Telephone number : 0031616179479 (0616179479 directly from The Netherlands)
E-mail : can.mehmet.tr@gmail.com
Driver's license : B

Education

2007-2010 Master Microelectronics, University of Technology Delft (Master of Science diploma)
2007-2008 Pre-Master Microelectronics, University of Technology Delft
2003-2007 Bachelor Electrical Engineering, Hogeschool van Amsterdam (Bachelor diploma)
2003-2004 Cum Laude Propedeuse Bachelor Electrical Engineering, Hogeschool van Amsterdam
2001-2003 HAVO, ISG Arcus, Lelystad, The Netherlands
1997-2001 MAVO, Norbertus MAVO, Tilburg, The Netherlands
1992-1997 Primary Education, Het Driespan, Enkhuizen, The Netherlands
1989-1992 Primary Education, Binbaşı Necatibey İlköğretim Okulu, Istanbul, Turkey

Courses

2015 **Analog Electronics Design, Anton Montagne, High Tech Institute**
Aspects of the course:

- Analysis and design of an amplifier using nullor model.
- Translating the specifications like bandwidth, noise, and power into boundary conditions, and identifying the show stoppers and fundamental limits.
- Presentation of the results using SLiCAP and MATLAB.

2015-2016 **Foundation Course Didactic Competence (FCDC). Certificate achieved.**
Modules:

- Development Education Program; designing curriculum
- Conduction Education and Lecturing
- Professional Lecturer and Coaching
- Examination and Grading

Working experience

Period : September 2020 to present
Function : Lecturer Bachelor Electrical Engineering
Organization : Saxion University of Applied Sciences in Enschede
Responsibilities :

- Researcher at Research Group Nanophysics.
 - Providing theoretical and practical lessons for the courses in power electronics, power engineering, electronics, electric circuits, and control systems.
 - Assist students in school projects, internship, and graduation projects.
 - Developing and organization of the core analog electronics and control systems program for electrical engineering department.
 - Developing course materials, including syllabus, writing assignments and exams.
-

Period : February 2021 to present
Function : Author
Organization : ThiemeMeulenhoff
Responsibilities :

- Author of a chapter about TRIAC and IGBT (Electrical Engineering) – MBO Techniek
 - Author of a chapter about electrical systems (Physics) – VWO 4
-

Period : August 2013 to September 2020
Function : Lecturer Bachelor Electrical Engineering
Organization : The Hague University of Applied Sciences in Delft
Responsibilities :

- Providing theoretical and practical lessons for the courses in electronics, control systems, and mathematics.
 - Assist students in school projects, internship, and graduation projects.
 - Developing and organization of the core analog electronics and control systems program for electrical engineering department.
 - Developing course materials, including syllabus, writing assignments and exams.
 - Utilized innovative methods of instruction, including video lectures, interactive class activities and discussions to present course material.
-

Period : October 2011 to October 2012
Function : Electrical Engineer
Organization : MAPPER Lithography in Delft
Responsibilities :

- Design of an electron beam current measurement system for the control of the electron dose for pattern writing on a wafer.
 - Analyzing the situation and identify what parts are needed for this measurement.
 - Investigate which type of sensor, amplifier, cabling, and DAQ card is best applicable for this measurement.
 - Mapping electrical and mechanical aspects of the measurement.
 - Research and design of electrical circuits, mechanical design of the sensor and wiring for non-magnetic and vacuum-compatible environment in the lithography machine.
-

Period : October 2010 to July 2011
Function : Lecturer Bachelor Electrical Engineering
Organization : Amsterdam University of Applied Sciences
Responsibilities :

- Providing theoretical and practical lessons for the courses in electronics, electric circuits, control systems, and mathematics.

- Assist students after their propedeuse of bachelor phase to continue with the Master.
 - Developing, organizing, discussing, and reviewing exams and quizzes.
 - Developing and organization of the core program for first year electrical engineering students.
-

Period : September 2005 - present
Function : Lecturer and study coach
Organization : Can Bijles
Responsibilities :

- Provide tutoring in the courses electronics, electric circuits, control systems, digital signal processing, calculus, linear algebra, and differential equations for college and university students.
- Provide tutoring in the courses mathematics, physics, and chemistry at Higher General Secondary Education (Dutch: HAVO and VWO) students.
- Assist in making and maintaining a study program.
- Advising on career choices.
- Guidance for students that would like move from Bachelor to Master.
- Instructive courses for smart and efficient learning.
- Assisting people from industry.

Website : <http://www.canbijles.nl>

Graduation works and internships

Period : March 2009 to February 2010
Function : Graduate, Master of Science
Organization : NIKHEF (National Institute for Subatomic Physics), Amsterdam
Responsibilities :

- Characterization of silicon X-ray sensors based on different guard structure ring to reduce the leakage current and to increase collection efficiency.
 - Research the effect of cutting using Deep Reactive Ion Etching (DRIE) and the difference between DRIE process and standard blade dicing technique on the leakage current of the X-ray sensors.
 - Comparison of X-ray sensors with guard ring with conventional silicon X-ray sensors.
-

Period : August 2009 to December 2009
Function : Intern, Master of Science
Organization : NXP Semiconductors Nijmegen, Department Quality Analytical Services
Responsibilities :

- Investigation of the effect of the IC package on the ESD (Electro Static Discharge) stress.
 - Analyzing the measurement data and the measurement errors in ESD stress measurements.
 - Research on the Charged Device Model (CDM) conditions for ESD protections made under CMOS technology.
-

Period : September 2007 to July 2008
Function : Graduate, Bachelor of Science
Organization : University of Technology Delft, Department Nanoelectronics and Neural Networks
Responsibilities :

- Literature survey on the cause of $1/f$ noise behavior in a tunnel diode.
 - Comparison of the physical structure of the tunnel diode and MOSFET.
 - Use of $1/f$ noise data of a MOSFET for the $1/f$ noise of a tunnel diode.
 - Examination of the $1/f$ noise models and analyze which model fits the best for the $1/f$ noise behavior of a tunnel diode.
-

Period : August 2005 to January 2006
Function : Intern, Bachelor of Science
Organization : Philips Semiconductors Nijmegen, Department Device Engineering and Characterization
Responsibilities :

- Literature survey on the ESD (Electro Static Discharge) behavior.
- Measuring ESD protections under CMOS technology and A-BCD3 technology.
- Performing ESD tests using Human Body Model, Charged Device Model, and ESD-Gun model.
- Comparing the measurement results of different types of ESD and validation the differences and similarities.

Publications

[1] TRIAC en IGBT, Mehmet Can, ThiemeMeulenhoff, January 2022 (Dutch)

[2] Systemische Natuurkunde VWO 4, Hoofdstuk 5 Elektrische Systemen, Mehmet Can, ThiemeMeulenhoff, February 2022 (Dutch)

Knowledge

Languages

	Writing	Verbal
• Turkish :	Excellent	Excellent
• Dutch :	Good/Excellent	Good/Excellent
• English :	Good	Good

Electronics and Semiconductor Physics

- Structured Electronic Design
- Semiconductor Physics and Devices
- Noise Analysis and Measurements
- Analog Filter Design Using Special Responses (Bessel, Butterworth, Chebyshev, and Cauer)
- Kalman Filtering
- Power Electronics Analysis and Design

Control Systems

- Design of PID and lag-lead controllers analytically and using MATLAB
- State-Space Design
- Analog and Digital Controller Design
- Nonlinear Control Systems Design
- Systems Dynamics using Bond Graphs

Mathematics and Modeling

- Lagrangian and Hamiltonian Mechanics
- Linear and Non-linear Differential Equations
- Complex Function Theory, Fourier and Laplace Transforms

Software

- MATLAB
- Maple
- SPICE Circuit Simulator
- Windows Office programs: Excel, Word, PowerPoint, and Outlook
- Basic knowledge in C.