



THE IEEE NORTH JERSEY SECTION NEWSLETTER

Vol. 66, No. 02

FEBRUARY 2020

Calendar of Events

How Well Do You Know Your S-Parameters? – MTT/AP, ED/CAS

Date: 30 January 2020 **Time:** 05:00 PM to 06:30 PM

Location: ECE 202, NJIT, 154 Summit Street, Newark, NJ 07102

Contact: Ajay K. Poddar: +1 201-560-3806, akpoddar@ieee.org, Durga Misra: +1-973-596-5739, dmisra@ieee.org,
Anisha Apte: anisha_apte@ieee.org, Edip Niver: edip.niver@njit.edu

Speaker: Prof. Tapan K. Sarkar

IEEE North Jersey Section EXCOM meeting - Feb 2020-Harrison

Date: 5 February 2020 **Time:** 06:00 PM to 08:30 PM

Location: Chinatown Restaurant, 2nd floor, 218 Harrison Ave, Harrison, NJ 07209 (Parking is free after 6PM right under Rt 280 bridge)

Contact: Hong Zhao (201)-692-2350, zhao@fdi.edu, Yu-dong Yao - yyao@stevens.edu

Engineering Ethics - PES / IAS / LM Joint Meeting

Date: 27 March 2020 **Time:** 02:00 PM to 04:00 PM

Location: PSE&G - Hadley Road Facility, Auditorium, 4000 Hadley Road, South Plainfield, NJ 07080

Contact: Ronald Quade - RWQuade@ieee.org, Ken Oexle k.oexle@ieee.org

Speaker: Joseph K. Lee, P.E.

IEEE NORTH JERSEY SECTION – Short Courses

Introduction to Embedded Systems Using ARM Microcontrollers – IEEE North Jersey/ComSoc

Date: 22 February 2020 **Time:** 10:00 AM to 4:00 PM

Location: ECE 202, New Jersey Institute Technology, Newark, NJ

COST: IEEE Members \$295, Non-IEEE Members \$395.

Contact: David Haessig - davidhaessig@ieee.org, Yang - yangl@ieee.org, Amit Patel - a.j.patel@ieee.org

Big Data Market Research in Seven Saturdays (Instructor: Donald Hsu) - Education Committee/ MTT/AP, ED/CAS

Date: 07 March 2020 **Time:** 09:00 AM to 12:00 PM (7 Saturdays, March 7, 14, 28, April 4, 11, 18, 25, 2020)

Location: ECE 202, New Jersey Institute Technology, Newark, NJ

COST: IEEE (& affiliate) members \$500; Non-IEEE members \$550.

Contact: Donald Hsu - yanyou@hotmail.com

Project Risk Management in Seven Saturdays (Instructor: Donald Hsu) - Education Committee/ MTT/AP, ED/CAS

Date: 07 March 2020 **Time:** 12:00 PM to 3:00 PM (7 Saturdays, March 7, 14, 28, April 4, 11, 18, 25, 2020)

Location: ECE 202, New Jersey Institute Technology, Newark, NJ

COST: IEEE (& affiliate) members \$500; Non-IEEE members \$550.

Contact: Donald Hsu: yanyou@hotmail.com

The 29th Wireless and Optical Communications Conference (WOCC 2020) – IEEE North Jersey/CS

Date: 1-2 May 2020 **Time:** 8:30 AM to 5:30 PM

Location: 323, Dr. M.L.K. Blvd. New Jersey Institute Technology, Newark, NJ

Contact: Hong Zhao (201)-692-2350, zhao@fdi.edu; Alfredo Tan, tan@fdi.edu, Howard Leach h.leach@ieee.org

Full paper submission due: 1/17/2020

IEEE – IMPORTANT EVENTS, ARTICLES, ANNOUNCEMENTS AND REMINDERS:

- [This Month's Communications Society News from Around the World](#)
- [“Creativity Induced By Near Sleep” - An article by Harry Roman](#)
- [The 29th Wireless and Optical Communications Conference \(WOCC 2020\)](#)

Introduction to Embedded Systems Using ARM Microcontrollers

Come join us for an intensive and practical workshop in embedded systems, designed for electronics engineers, software engineers, and other technical professionals.

The workshop includes a commercial-grade embedded systems development board (*Microchip SAM E70 Xplained Ultra*) with a 32-bit ARM microcontroller (*ATSAME70Q21*) plus a peripheral board (*Microchip I/O1 Xplained Pro*)*. **This \$145 value + handbook is yours to keep!**

You will learn how to use the companion Integrated Development Environment (IDE) and the 32-bit C compiler to create your firmware. You will also learn basic methods of debugging.

We will be reviewing the overall concepts of microcontrollers, interfaces, and electronic components.

We will go over software vs. firmware, program structure, peripheral interfacing, and basic real-time considerations.

This one-day workshop is structured with a few hours of interactive lectures, and a few hours of hands-on experience with the hardware and software. **Lunch is included!**

The student must provide their own computer with the IDE and C compiler pre-installed; both are available for free from the manufacturer.

The IDE and the C compiler work on updated versions of Windows, macOS, and several Linux variants, allowing you a choice in platforms.

Your instructors are Jim Julian and Jay Morreale, both with degrees in electrical engineering and decades of diverse commercial experience.

Get introduced to a new skill in just one day!

Presented in association with the IEEE North Jersey Section.  IEEE

What You Will Learn

- What embedded systems are, and what they are used for.
- The basic end-to-end process of designing an embedded system, from components to working firmware.
- Skills to troubleshoot an embedded system.

Prerequisites

- Know** A general understanding of electronics and components, computer concepts, interfaces, as well as basic experience in the C programming language.
- Bring** Portable computer, with the IDE and C compiler software pre-installed.



Introduction to Embedded Systems Using ARM Microcontrollers	
Non-IEEE Member	\$395
IEEE Member	\$295
Location:	ECE 202, New Jersey Institute of Technology, Newark, NJ
Course Date	Saturday, February 22, 2020

*Included hardware is based on availability and is subject to substitution with similar items. **Last day for refunds. TR-MK-101-02 ©2019

For up to date information, visit our website: [IEEE North Jersey Section](#) . You do not have to be an IEEE member to attend any event. The Section Executive Committee roster is at: <http://sites.ieee.org/northjersey/org/> Prior registration is encouraged and appreciated.