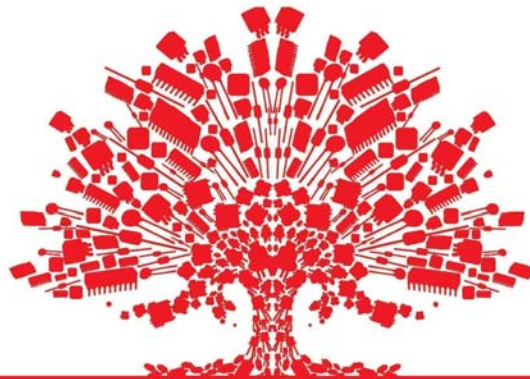


The European University Program



TEXAS
INSTRUMENTS

Welcome...Bienvenue...Willkommen...Здравствуйте...Bienvenido...

Enabling teaching and research to use TI technologies across the entire signal chain!

The European University Program was established in 1994, with the objective of facilitating the inclusion of world-class real-time DSP and Analog into electrical and electronic engineering research and course curricula.

In our region, the program now supports over 1000 Universities offering Electronic and Electrical Engineering, Computer Engineering and Computer Science courses. Our technologies are also being put to good use in Biomedical, Robotics, Mechatronics, Environmental Sciences, Aeronautical and other related courses.

Registration is open to all post-graduates and those working in academia – Lecturers, Lab Engineers, Professors and Researchers. Registration brings access to:

- [Preferred pricing](#) on tools and evaluation modules specifically for academic users
- [Unrestricted access to TI expertise](#) through the [European Customer Support Center \(ECSC\)](#)
- A **50% discount** on the price of all [TI workshops](#) for academic participants
- **Regular e-mailings** of relevant information and support
- **Access to useful materials:** Teaching Materials, Brochures, Proceedings, Challenge Entries
- **Engineer to Engineer Communities (E2E)** – dedicated forums for academic information exchange, support and discussions:

www.ti.com/europe/university

<http://e2e.ti.com>

Registration

Registration for the program is free of charge, and receipt of this Welcome Pack confirms that you are now registered.

Should your details change, please notify us as soon as possible. This can be done by sending an email subject "University Program" to epic@ti.com with your new contact details.

In this Welcome Pack

Brochures

Academia-specific brochures with relevant product information on our most useful tools:

- **Low Power RF – “ChipCon”**
- **Microcontrollers for Academia – MSP430**
- **Microcontrollers for Academia – C2000**
- **Real Time DSP**
- **Power Management**
- **Data Conversion**
- **University Price List**

All of these brochures are also available to download from the European University Program website:
www.ti.com/europe/university

Teaching Materials

A rich selection of resources to support DSP and Microcontroller teaching activities:

- **MSP430 Teaching ROM**
- **C2000 Teaching ROM**
- **C5000 Teaching ROM**
- **C6000 Teaching ROM**
- **“From MATLAB and SIMULINK to Real-time Using TI DSP” Teaching ROM**

Additional Information

- **TI’s Power Rulers, enabling more efficient power supply design**
- **Excellence in Signal Processing Award (ESPA) Information**
- **Texas Instrument’s European Graduate Program Information**

Technologies Supported by the European University Program

Low Power RF

Wonderful examples of both system-on-chip (SOC) and low-power wireless technologies, the Chipcon product line of low power RF chips are gaining wide usage in academia. These ICs operate at sub-1GHz or 2.4GHz ISM band frequencies and provide robust digital communication using proprietary and industry standards, such as IEEE 802.15.4. Applications include home automation and security, PC peripherals, remote control, industrial process monitoring and wireless sensor networks. Typical data rates are in the range of 1.2K to 500K bps.

Data Converters

TI is a leader in data converter technology, with convenient board solutions, free simulation software and technical support that enables Universities to design complex high-performance systems as well as devising engaging student classes on the principles of data conversion. Tools such as ADCPro enable thorough performance evaluation of our ADCs using LabVIEW™ and a PC. Biomedical, Professional Audio, Instrumentation and Imaging are just a few of the applications covered by TI Data Converters.

Microcontrollers (MCU) - MSP430 and C2000 Tools for Laboratories and Projects

The MSP430 range is highly attractive for both teaching labs and student projects. Develop codes faster in C or assembler with a choice of included software platforms and debugging utilities. With up to 24MIPS of performance available, on-chip flash memory, and a completely integrated signal chain, the MSP430 offers a genuine single-chip solution for many power critical projects.

The C2000 family of “Digital Signal Controllers” are a family of high-performance microcontrollers with the speed and arithmetic capabilities of a DSP combined with the peripherals of a fully-fledged multi-purpose microcontroller. Our range of tools now stretches from the diminutive “Piccolo Stick” to the high-performance floating-point 28335 DSK. For Lab use the Peripheral Explorer and Experimenters Kits provide ideal platforms. Both of these families are supported by outstanding Teaching Materials available free-of-charge on request.

Power Management

Power Management is now a major subject in its own right. No longer is the power supply an afterthought, sometimes it is the very heart of the system, such as in solar powered or energy harvesting applications. The push towards low-power systems combined with the complexity of multiple power rails for leading edge processors make this a true systems engineering topic.

Unitrode, Power Trends, Benchmarq and Ciclon are all TI companies, enabling TI to be the undisputed industry leader in power management. We have an excellent range of low-cost EVMs tailored for specific applications, which make designing power supplies much easier. Free and downloadable design software with effective simulators makes power supply design even easier.

Real Time DSP

The TMS320™ DSP family delivers the most extensive selection of DSPs with two distinct architectures: C5000 16 bit fixed point low-power, and C6000 high-performance fixed and floating point application oriented devices. Both variants are completely code compatible within each platform.

Most Universities choose to equip their laboratories with DSP Starter Kits (DSKs). These kits combine application-specific software and hardware in an easy-to-use development environment. The availability of ready-made Teaching Materials makes starting a Lab really easy!

Code Composer Studio (CCS)

Code Composer Studio version 4 is based on the industry-standard “Eclipse” platform, enabling compatibility with many third-party software plug-ins. It supports ALL of TI’s processors: DSP, MSP430, C2000 and ARM. This means that just one Integrated Development Environment (IDE) can serve everybody’s needs, and migrating from one TI platform to another has never been easier.

It is our policy to provide the full version of CCS free-of-charge for academic use on request, and we now issue a 100-user license at the same time. In short, we do not believe that any processor manufacturer has such a simple and generous IDE support policy for academia!

The Donation Process

TI has provided regular support to academic institutions through the donation of tools to support Labs and Projects. The focus is on technologies which have a TI Part Number and which are fully supported by the ECSC. This covers the vast majority of TI’s most useful technologies.

When TI offers a donation, it wants to be sure that the request has been properly thought-out and that **the tools will be put to good use**. It is therefore fundamental that the donation request has a clear objective and that it will produce clear results.

A request where the University offers to buy some of the tools needed is a clear sign of commitment, and we often arrange deals such as “buy two, get one free”

The typical value of a donation varies depending on the tools, but for individual projects it is usually in the \$500 to \$1,000 range. For a Lab with multiple-workstations it can be as high as \$3,500.

TI makes no charges for donations and the goods are shipped free of charge. But, if the goods cross a Customs boundary, such as when they are imported into a non-EU country, there may be charges incurred. Please note, and note well, that if you are outside the EU, TI will not pay these charges.

For more details please request TI's "**Guide to TI Donation Support**"

Special Pricing on Selected Tools for Universities

Selected development tools are discounted by up to 75% for academia. A new University Pricelist is published every quarter and is available online
http://focus.ti.com/general/docs/university/univ.jsp?templateId=5807&navigationId=10543&path=templatedata/cm/univgen/data/univ_pricing_ovw The pricelist includes DSP, MSP430 and C2000 microcontroller tools. These tools can be purchased at the University Price from any of our authorised distributors. We recommend Farnell <http://www.farnell.com> as our preferred distributor to academia because of their focus on the academic sector.

Workshops

Texas Instruments offers a wide range of training workshops which are divided into One-Day Workshops and Multi-Day Workshops. We welcome members of academia to these courses, and as members of the University Program they automatically benefit from a 50% discount. To receive this discount, please enter the discount code: **TI-University** when registering. A schedule of forthcoming workshops can be found at the following website: www.ti.com/europe/workshops

Reproduction of TI Databooks, Web Illustrations and Workshop Materials

The source-code of the PowerPoint slides, Instructor Notes, Student Notes and/or Lab exercises from the TI Design Workshops are available for educational purposes at no cost. These are copyrighted to TI and a legal process has been established to grant use of these items to educators. A request must be made to access these materials and once this has been approved by TI's legal department, the electronic materials will be delivered by FTP file transfer. Please send your requests to: epic@ti.com

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Europe, the Middle East & Africa (EMEA) Customer Support Centre

Based in Prague, and speaking many languages, the EMEA Customer Support Centre can assist you to use TI technologies in your University. TI treats academics as customers and supports them through the normal commercial channels, so **you can get direct access to our experts**.

Please note that this support is for **post-graduates** – we expect you to look after your under-graduate students!

Typical topics covered include:

- **University Program: registration, pricing, teaching materials, software...**
- **Technical Enquiries: product choice, software issues, configuration, code optimization...**
- **Requests for support...**

You can contact the EMEA Customer Support Centre in the following ways:

- **Web entry** - <http://www.ti.com/europe/csc>
- **Direct e-mail** - epic@ti.com
- **E2E Forums** - <http://e2e.ti.com>
- **Telephone – Free Call: 00800 275 83927,**
- **Russian Support- Call: +7 (495) 987 0701**

