



UNIVERSITY OF  
THESSALY

<http://www.eece.uth.gr>

# Open Days 2021

Department of Electrical and Computer Engineering (EECE),  
University of Thessaly

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# The Department of Electrical and Computer Engineering

► Website <https://www.e-ce.uth.gr/>



Τμήμα Ηλεκτρολόγων Μηχανικών & Μηχανικών Υπολογιστών

Πανεπιστήμιο Θεσσαλίας



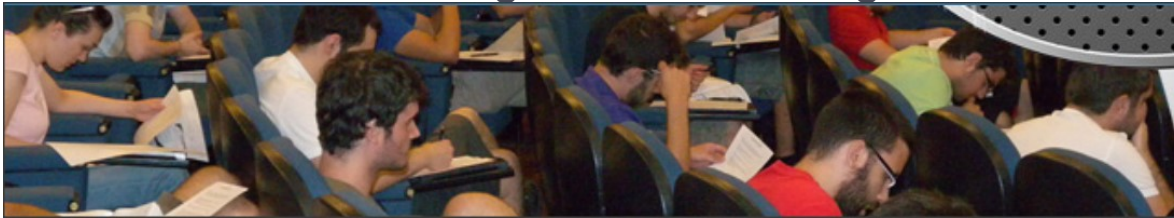
Τμήμα ▾ Σπουδές ▾ Έρευνα ▾ Δραστηριότητες ▾ Απόφοιτοι ▾ Υπηρεσίες ▾ Ανακοινώσεις ▾ Επικοινωνία ▾ Είσοδος



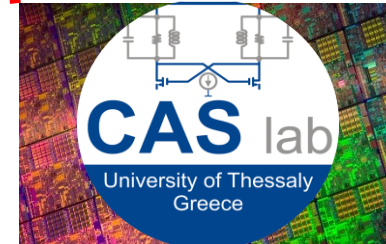
# The Department of Electrical and Computer Engineering

## ▶ Teaching

- ▶ 5 year Bachelor of Engineering, **BEng**, Degree
- ▶ Accredited as an Integrated Masters Degree



**0% Unemployment**



## ▶ Academic Research and Development (R&D) Labs

- ▶ Circuits and Systems Lab, <https://caslab.e-ce.uth.gr/>
- ▶ Electronics Lab, <https://vedalab.e-ce.uth.gr/>
- ▶ Computer Systems Lab, <https://csl.e-ce.uth.gr/>
- ▶ Distributed And Network Algorithmics (DANA) lab, <https://dana.e-ce.uth.gr>
- ▶ Data Structuring and Engineering Lab, <https://dase-lab.e-ce.uth.gr/>
- ▶ Creative Technologies Learning Lab, <https://ctll.e-ce.uth.gr/>
- ▶ Network Implementation Testbed Lab, <https://nitlab.inf.uth.gr/>
- ▶ Smart Energy Policy and Networks Lab
- ▶ Signal Processing Lab



# Life at the Department of Electrical and Computer Engineering

## ▶ Lectures – Early Years



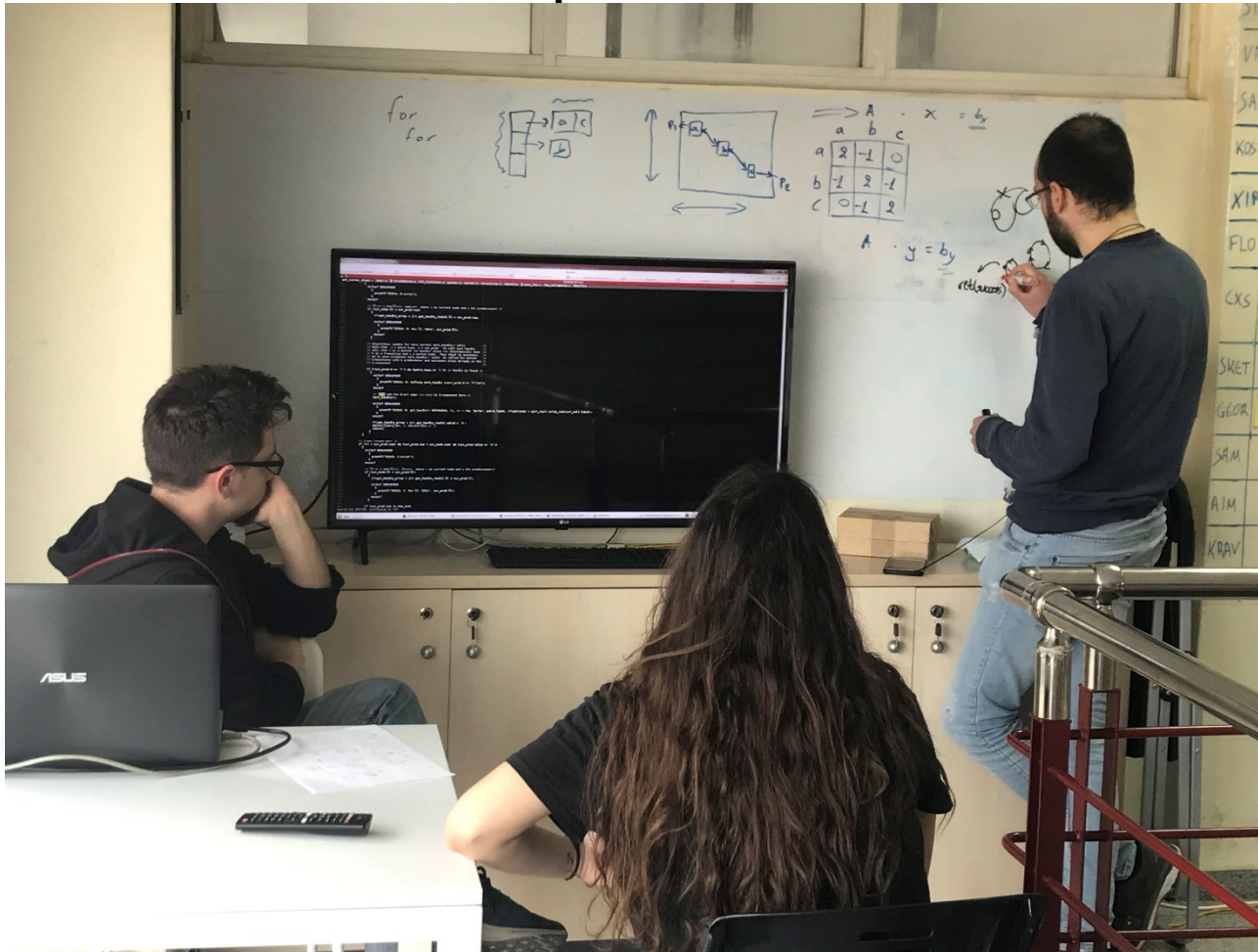
# Life at the Department of Electrical and Computer Engineering

## ▶ Lectures – Later Years



# Life at the Department of Electrical and Computer Engineering

## ► Research Groups and Labs



# Life at the Department of Electrical and Computer Engineering



## ▶ Student Parties



# Life at the Department of Electrical and Computer Engineering

## ▶ Research Groups and Labs





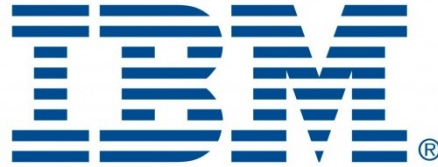
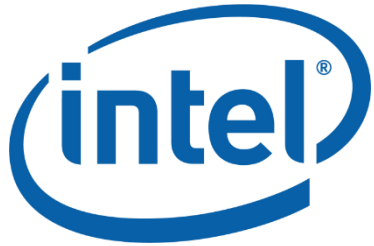
# Life at the Department of Electrical and Computer Engineering

## ▶ Corporate Visits for Internships, Employment



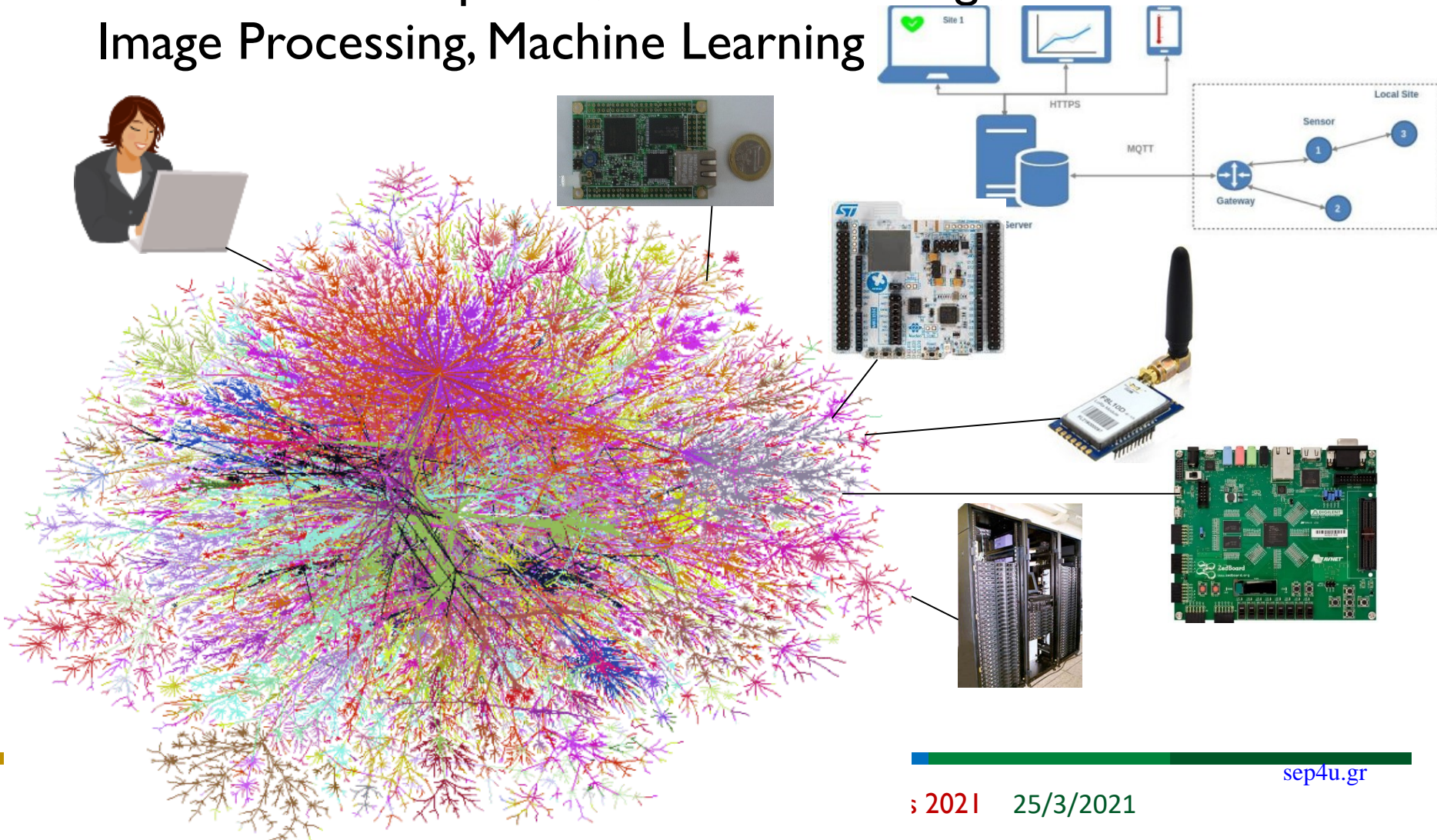


# Employment Opportunities (a few...)



# R&D at the Department of Electrical and Computer Engineering

- ▶ Software Development, Internet of Things, Cloud, Image Processing, Machine Learning



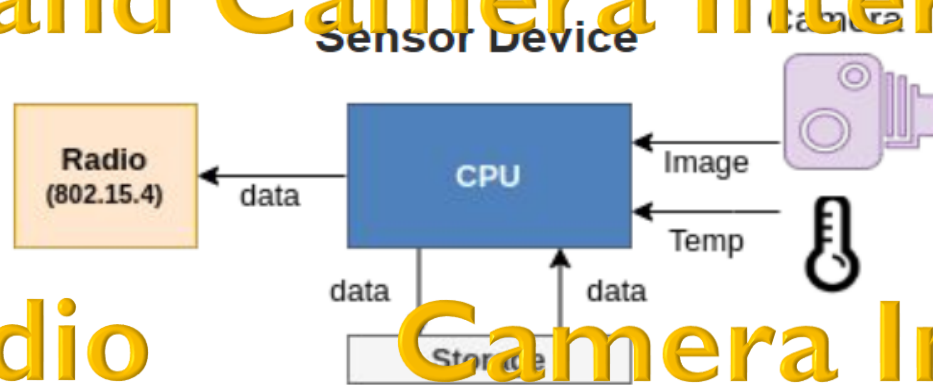
# R&D at the Department of Electrical and Computer Engineering

- ▶ Software Development, Internet of Things, Cloud, **Computer Vision**



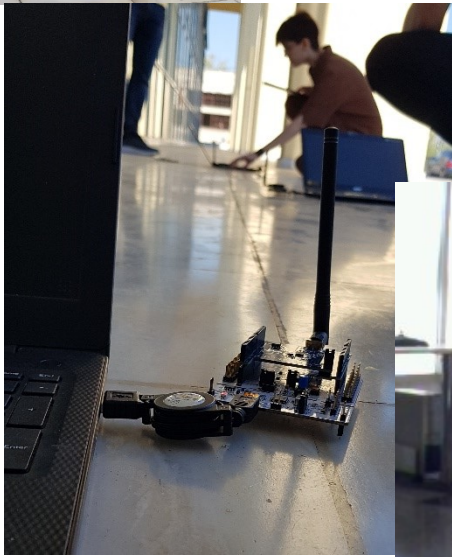
# R&D at the Department of Electrical and Computer Engineering

## Radio and Camera Interface



## Radio

## Camera Interface



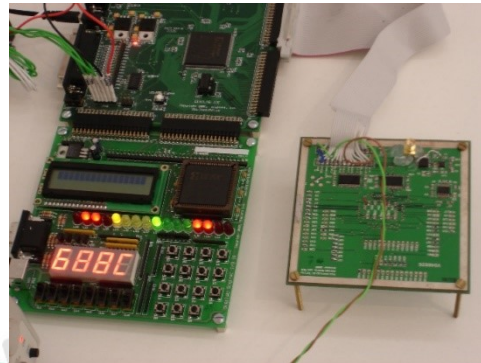
# R&D at the Department of Electrical and Computer Engineering

## OCR (Optical Character Recognition)

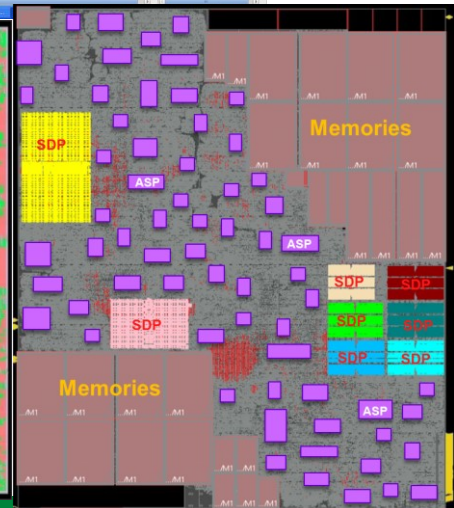
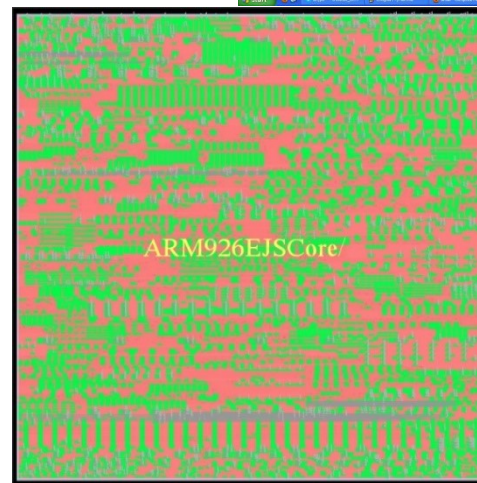
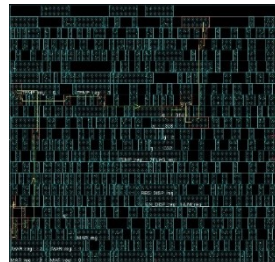
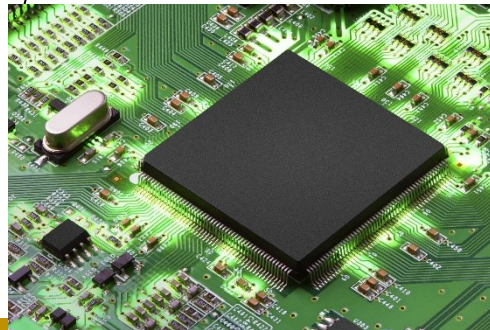
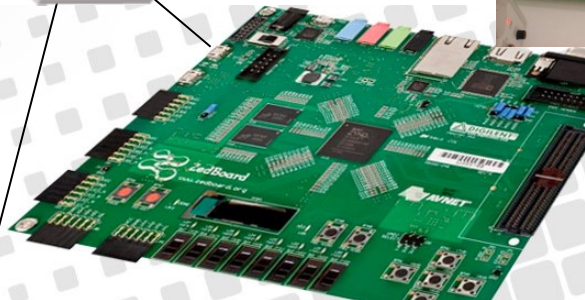
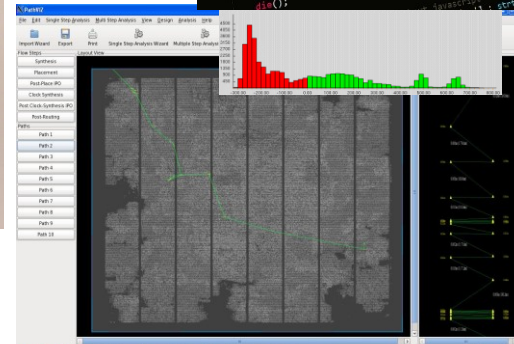
The screenshot displays a Linux desktop environment. On the left, a file manager window shows a directory named 'test\_data' containing four PNG files: '3.png' (505 bytes), '6.png' (559 bytes), 'C.png' (12,7 kB), and 'R.png' (603 bytes). The 'C.png' file is dated '14 Aug 2009'. In the background, a terminal window shows the command prompt 'root@zedboard-dpu-trd-v2019-1:~/ZedBoard/samples/OCR#' and a cursor. In the foreground, the 'vokoscreenNG 3.0.8' application is open, showing a toolbar with icons for a monitor, microphone, camera, tools, clock, help, and a penguin. The main window contains two checked options: 'Built-in Audio Analog Stereo' and 'Monitor of Built-in Audio Analog Stereo'. Below these is an 'Audiocodec' dropdown menu set to 'vorbis'. At the bottom of the window are buttons for 'Start', 'Stop', 'Pause', 'Play', and 'Folder'. The desktop environment includes a sidebar with 'Recent', 'Home', 'Desktop', 'Documents', 'Downloads', 'Music', 'Pictures', 'Videos', 'Trash', and 'Other Locations'. The bottom panel shows various application icons and system status indicators including 'en', 'Πεμ 13:23', and network, volume, and battery icons.

# R&D at the Department of Electrical and Computer Engineering

## ► Software Development for IC Design, Hardware Design



```
if (!isset($_SESSION['psd'])) {  
    session_start();  
    if (!isset($_SESSION['psd'])) {  
        die("psdinfo requires the psd extension to be loaded properly.");  
    }  
    require_once APP_ROOT . '/includes/autoloader.inc.php';  
    // Load configuration  
    require_once APP_ROOT . '/config.php';  
    require_once APP_ROOT . '/psd/psd.php';  
    if (!defined('PSD_CONFIG_FILE')) {  
        $tpl = new Template('templates/html/error_config.html');  
        echo $tpl . fetch();  
        die();  
    }  
}
```



# CAD Software for Hardware Design

The screenshot displays a multi-paneled CAD software interface for hardware design. The top-left pane shows a Verilog model for a master read circuit, generated by petrify 4.2. The code includes module declarations and a list of signals: ari, pri, bpm, xack, di, aro, pro, breq, busyo, mrdc, do, csc0, and csc1. The top-right pane, titled 'Workcraft', shows a logic diagram with nodes labeled with the same signals as in the code, such as 'ari', 'csc2+', 'di-', 'csc2+', 'aro-', 'pri+', 'pro+', 'pri-', 'breg+', 'bpm', 'csc1+', 'busyo-', 'mrdc-', 'xack-', 'do+', 'di+', 'mrdc+', 'breq+', 'xack+', 'bpm+', and 'csc1+'. The bottom-right pane, titled '\*mr0\_techmap\_ihp [circuit]', shows a detailed gate-level circuit diagram with numerous logic gates (AND, OR, NOT) and inverters, each labeled with a unique identifier like 'and3d1' or 'not3d1'. The bottom-left pane shows a terminal window with the command prompt 'sketopou@torreyridge DEMO1\$'. The interface includes standard menu bars (File, Edit, View, Tools, Conversion, Transformation, Verification, Help) and toolbars with icons for various design operations.



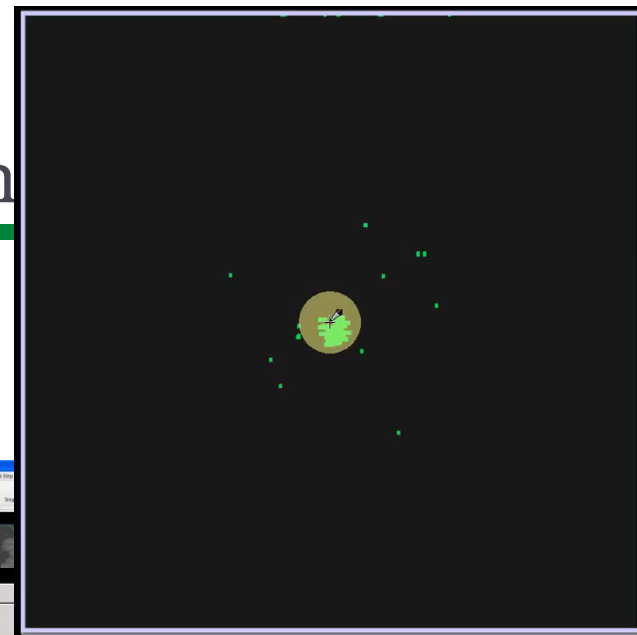
# R&D at the Department of Electrical and Computer Engineering

- ▶ Software Development for IC Design,

## Automated

## Hardware Design

# Placement Algorithms



File Edit Tool Modes View Design Placement Flow Analysis Help

Invoke Import Wizard Export Design Data to DEF Export Floorplan TCL Script Single Step Tool Mode Multiple Step Tool Mode DEF DFF Tool Mode Zoom In Zoom Out Zoom Fit

Hierarchy Browser: Layout View: Module | Hierarchy Name:

Flow Steps:

- Synthesis
- Placement
- Post-Place I/O
- CTS
- Post CTS I/O
- Post-Routing

Welcome! Please Import Design Data to Begin...

Memories ASP SDP

**Contact Details:**

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# Conclusions

- ▶ Teaching and R&D go hand by hand at University Level
- ▶ The EECE Department excels at Teaching and R&D
- ▶ The EECE Department offers many opportunities
  - ▶ Both within and outside the University
- ▶ The EECE Department is a center of excellence in art, high-tech and research
  - ▶ Students may benefit from our research
  - ▶ Our R&D Laboratories are open to companies
- ▶ **Join us!**



**EECE  
Department**

# WE WANT YOU!