



MATLAB and Simulink Training for Mechatronics Engineering (4 CFU)



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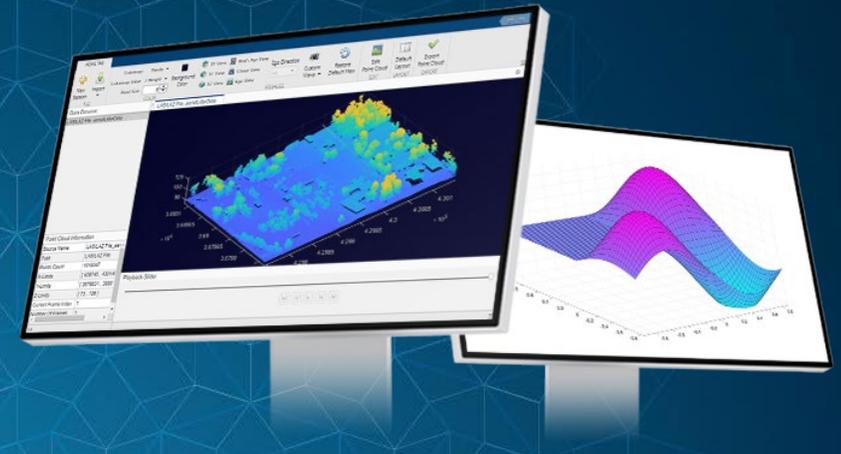
Alessio Conte

Academic Engineer

Academia Team

aconte@mathworks.com

MATLAB® & SIMULINK®



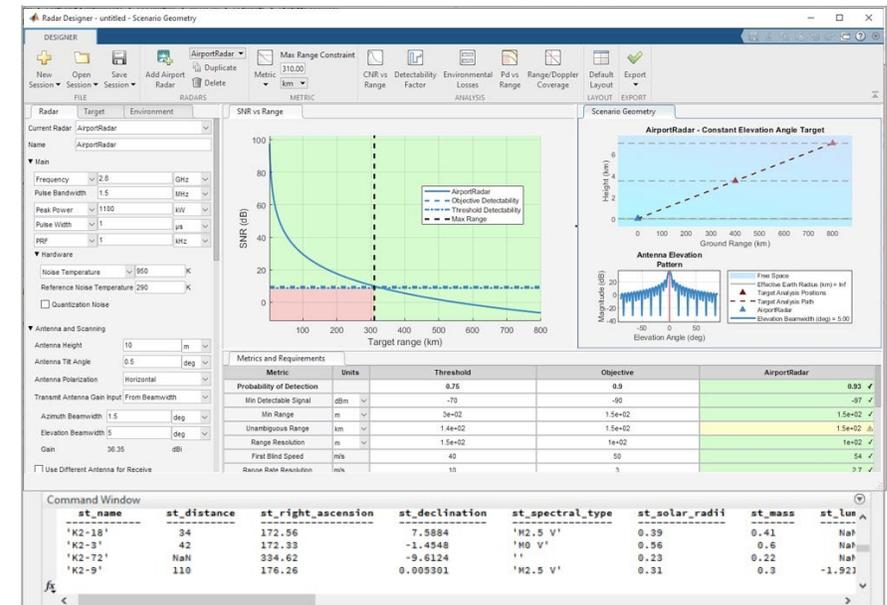
Our Products

MATLAB – Programming environment for algorithm development, data analysis, visualization, and numeric computation.

Simulink – Block diagram environment for simulation and Model-Based Design of multidomain and embedded engineering systems.

130+ add-on products for specialized tasks.

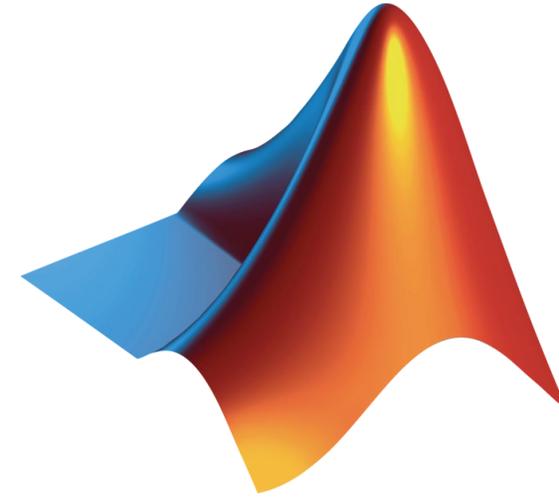
Radar Toolbox



MATLAB and Simulink Online Training Program for Mechatronics Engineering – 4 CFU

This program is designed for Master's students in Mechatronics Engineering who want to strengthen their skills in modelling, simulation, and data analysis using industry standard tools.

- Combine **theory** with **hands-on practice** across four learning modules.
- Self-paced **Online** Courses
- Each Module gives **1 CFU**
- **4 CFU** in Total
- Estimated **47 Hours** in Total
- Gain **Certificate** to share on your **CV** or **LinkedIn** Profile



[View full program](#)



MATLAB and Simulink Online Training Program for Mechatronics Engineering – Group A and Group B



Build MATLAB Proficiency

LEARNING PATH: 8 COURSES

Gain a comprehensive foundation in MATLAB to confidently tackle more complex challenges and applications.

1 CFU

~12
Hours



Advanced MATLAB Programming Skills

LEARNING PATH: 4 COURSES

Write clearer, more efficient, more robust, and more flexible MATLAB code.

1 CFU

~15
Hours



Data Analysis in MATLAB

LEARNING PATH: 5 COURSES

Navigate and analyze complex datasets in MATLAB, acquiring data management, cleaning, and analytical skills that are crucial for extracting insights from data.

1 CFU

~15
Hours

MATLAB and Simulink Online Training Program for Mechatronics Engineering - Group C



Simulink Fundamentals

LEARNING DURATION: 8 Hour

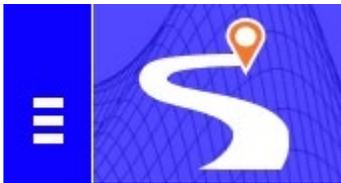
Learn how to use Simulink, a graphical simulation tool for modeling dynamic physical systems.



Simscape Onramp

LEARNING DURATION: 1 Hour

Learn the basics of simulating physical systems in Simscape.



Control System Design with MATLAB and Simulink

LEARNING PATH: 5 COURSES

Build your control system design skill set.

1 CFU

~12.5
Hours

MATLAB and Simulink Online Training Program for Mechatronics Engineering - Group D



Simulink Onramp

LEARNING DURATION: 2 Hour

Get started quickly with the basics of Simulink.



Circuit Simulation Onramp

LEARNING DURATION: 1.5 Hour

Learn the basics of simulating electrical circuits in Simscape.



Power Electronics Simulation Onramp

LEARNING DURATION: 1 Hour

Learn the basics of simulating power electronics converters in Simscape.

Total Group D

1 CFU

~7.5
Hours

MATLAB and Simulink Online Training Program for Mechatronics Engineering - Group D



Introduction to Motor Control

LEARNING DURATION: 1 Hour

Learn the basics of creating models and designing controllers for electric motors using Motor Control Blockset.



Motor Modeling with Simscape Electrical

LEARNING DURATION: 1 Hour

Learn to create medium and high-fidelity electric motor models in Simscape Electrical and connect them to a controller in Simulink.



Simscape Battery Onramp

LEARNING DURATION: 1 Hour

Learn the basics of simulating battery systems in Simscape.

Total Group D

1 CFU

~7.5
Hours

Preliminary Actions for Access MATLAB Courses

- For the full guide go to  <https://docs.ccd.uniroma2.it/matlab/>



Preliminary Actions for Access MATLAB Courses

1. Go to [→ //it.mathworks.com/mwaccount/](https://it.mathworks.com/mwaccount/)

Log in to your MathWorks Account

[Forgot your password?](#)

Keep me logged in

Log In

Don't have a MathWorks Account? [Create Account](#)

Preliminary Actions for Access MATLAB Courses

2. Create MathWorks Account:

Create MathWorks Account

Email Address 

You will need to verify your email address

Country/Region ▼

How will you use MathWorks software? ▼

Are you at least 13 years or older? Yes No

Preliminary Actions for Access MATLAB Courses

3. Go to your personal page on Delphi:

AREA STUDENTI

ISCRIZIONI

vodafone
Tor Vergata

Inserisci Login e Password

Login (Matricola):

Password:

[Hai dimenticato la password? Clicca qui](#)

ENTRA

Preliminary Actions for Access MATLAB Courses

4. Go to other services:

ESAME DI LAUREA	<ul style="list-style-type: none">• Gestione Domanda di Laurea
ALTRI SERVIZI	<ul style="list-style-type: none">• Attivazione altri servizi
	Domanda benefici per merito termini previsti dal bando per poter richiedere il beneficio sono scaduti!

Preliminary Actions for Access MATLAB Courses

5. Go to Activation Code:



UNIVERSITÀ DEGLI STUDI DI ROMA TOR VERGATA

Homepage Area Docenti Area Studenti *Delphi*

AREA STUDENTI

SERVIZI FORNITI

- [Attivazione Microsoft Office365](#)
(e-mail, network-disk, etc.)
Per maggiori informazioni clicca [QUI](#)
- [Codice Attivazione MathLab](#)

INDIETRO

How to Download MATLAB

- Go to  <https://www.mathworks.com/downloads>

R2025b

Select Release
R2025b



I Want To:
Install Products



Get MATLAB and Simulink Products

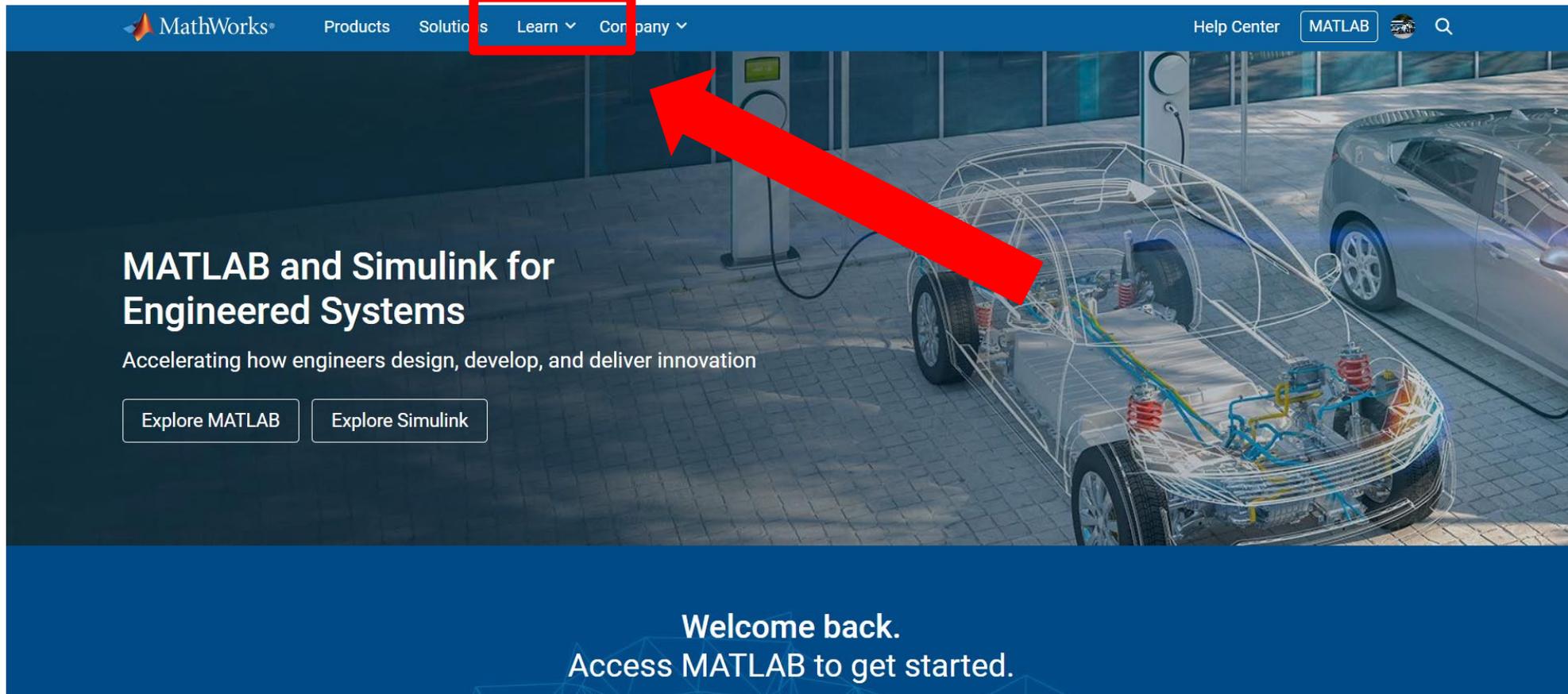
Download for Windows



 R2025b Update 4 (18 Feb 2026)

How to Access the Courses

- Go to mathworks.com



How to Access the Courses

The screenshot shows the MathWorks website navigation menu. The 'Learn' dropdown menu is open, displaying three main categories: Training, Events, and Learning Resources. Under the Training category, 'Self-Paced Online Courses' is highlighted with a red rectangular box. A large red arrow points from the bottom right towards this box. Below the Training list is a 'Contact Us' button. To the right of the navigation menu, there is a 'MATLAB and Simulink Videos' section with a blue header and a white body containing text and a link to 'Explore videos'.

MathWorks® Products Solutions Learn ^ Company v Help Center MATLAB Q

Training

- Self-Paced Online Courses
- Instructor-Led Training
- MathWorks Certification Program

Events

- MATLAB and Simulink Events
- Event Proceedings
- Webinars and Webinars

Learning Resources

- Teach with MATLAB
- Research with MATLAB
- Student Programs
- Books

Contact Us

Visit the [Help Center](#) to explore product documentation, engage with community forums, check release notes, and more.

MATLAB and Simulink Videos
Learn about products, watch demonstrations, and explore what's new.
[» Explore videos](#)

Welcome back.
Access MATLAB to get started.

How to Access the Courses

The screenshot displays the MATLAB Learning interface. At the top, there is a navigation bar with 'MATLAB Help Center', 'Community', and 'Learning' tabs. The 'Learning' tab is active. Below this is a blue header with 'Online Courses' and a navigation menu with 'Home', 'My Courses', 'Online Training Suite', and 'Documentation & Support'. The main content area is titled 'Self-Paced Online Courses' and features a section for 'My recent activity' with a card for 'Deep Learning Onramp'. This card shows a progress bar at 19%, a duration of 1.5 hours, and links for 'Share Course' and 'Certificate & Progress Report'. Below this is a 'Courses and Learning Paths' section with a 'FILTER BY' table and a 'Sort by' dropdown set to 'Featured'. The table lists course types and counts. The main list shows two featured courses: 'MATLAB Onramp' (Completed, 2 hours) and 'Simulink Onramp' (Completed, 2 hours). A pagination link shows 'Results 1 - 10 of 110'.

MATLAB Help Center Community Learning

MATLAB

Online Courses

Home | My Courses | Online Training Suite | Documentation & Support

Self-Paced Online Courses

My recent activity

Deep Learning Onramp [» View all my courses](#)

19% | 1.5 hours | [Share Course](#) | [Certificate & Progress Report](#)

Courses and Learning Paths

FILTER BY

Type	Count
Course	94
Onramp (Introductory Course)	25
Learning Path	16

Using MATLAB

All MATLAB	42
Get Started with MATLAB	5
Language Fundamentals	14
Data Import and Analysis	16

Sort by **Featured**

< Results 1 - 10 of 110 >

New to MATLAB? Start here:
MATLAB Onramp
COMPLETED | 2 hours | [Languages](#)
Get started quickly with the basics of MATLAB.

New to Simulink? Start here:
Simulink Onramp
COMPLETED | 2 hours | [Languages](#)
Get started quickly with the basics of Simulink.

How to Gain the Credentials



MATLAB Help Center

Community

Learning

MATLAB



Online Courses

Home

My Courses

Online Training Suite

Documentation & Support



MATLAB Onramp

Start course

Share Course | **Certificate & Progress Report** | Quick Reference | Settings

COMPLETED | English (change)

Learn the basics of MATLAB® through this introductory tutorial on commonly used features and workflows. Get started with the MATLAB language and environment so that you can analyze science and engineering data.

Course modules

- ✓ > [Course Overview](#) 100% | 5 min
- ✓ > [Commands](#) 100% | 20 min
- ✓ > [MATLAB Desktop and Editor](#) 100% | 15 min
- ✓ > [Vectors and Matrices](#) 100% | 15 min
- ✓ > [Array Indexing and Modification](#) 100% | 15 min

About this course



For: [Advanced](#)
Length: [About 1 hour](#)
Language: [English \(change\)](#)

Features

- Hands-on exercises with automated feedback
- Access to MATLAB through your web browser
- Shareable progress report and course certificate

Authored By:



Renee Coetsee

How to Gain the Credentials

Certificate and Progress Report



Certificate

Progress Report

Share progress with another user (e.g., your instructor)

Certificate

You can share a link or PDF to a MathWorks-provided certificate.

Share:

<https://matlabacademy.mathworks.com>

Copy



Download or print:

View PDF

Note: PDF link is not shareable.

[Change Language or Release](#)

Credentials on Credly



Search by badge name, organization, skill, occupation or learning pathway



Welcome, Adriano

Congratulations on your most recent badge 🎉



MATLAB Student Ambassador

MathWorks

Share



Unlock recommendations tailored for you!

Build your skills wallet and gain personalized learning recommendations designed to help you advance your career. By sharing your occupation history with us, we can suggest key occupation skills, identify useful badges and help you showcase your abilities on your profile.



Credentials on Credly

Share your badge

Broadcast your achievement to friends and colleagues to get the recognition you deserve.



MATLAB Student Ambassador

Issued by [MathWorks](#)

Promote

Share your achievement on social media.

 LinkedIn

 X (Twitter)

 Facebook

Publish

Send your badge or take it offline.

 Email

 Embed Code

 Public Link

 Download Badge

Follow us on Instagram:



@mtlbsauniroma2

Join the Community:



MATLAB Uniroma 2



Follow your MATLAB Students Ambassador at
Università degli Studi di Roma Tor Vergata

