MATLAB&SIMULINK®

ACCELERATING LEARNING AND RESEARCH





A Campus-Wide License provides unlimited use of MATLAB and Simulink to all students, faculty, staff, and researchers, on and off campus, on any device.

Gain access to:

- The same tools used by engineers and scientists
- Resources to increase MATLAB proficiency and complete assignments

Download what you need from your MATLAB portal:

http://tiny.cc/MATLABHITS

Scan QR Code



Get up to speed quickly with interactive online courses and tutorials. Free access is available in your MATLAB portal.

Use MATLAB Grader to create interactive, autograded course assignments with instant learner feedback. Find out more at grader.mathworks.com.



MATLAB&SIMULINK®



Hindustan Institute of Technology and

Science provides free access to interactive courses through Campus-Wide Online Training. Here are just some of the benefits:

- Learn at your own pace.
- Receive instant feedback.
- Share progress reports and course certificates.



Make the most of your access—for the classroom, for research, and for your career:

- Onramp courses cover the basics of MATLAB and Simulink.
- MATLAB Fundamentals provides a comprehensive introduction to common features.
- Computational math courses use MATLAB to combine math applications with computing technologies.
- Additional courses span a range of contemporary and advanced topics:
 - · Deep learning
 - · Machine learning
 - · Data visualization
 - Programming techniques

Scan QR Code



View the full list of courses and their durations

at mathworks.com/AcademicTraining.





MATLAB and Simulink Available on Campus

Hindustan Institute of Technology and Science offers MATLAB, Simulink and several add-ons products for use by faculty, academic researchers and students.

Use the MATLAB Portal as a landing page for downloads, learning resources, and more:

https://www.mathworks.com/academia/tah-portal/hindustan-institute-of-technology-andscience-31239439.html

Scan OR Code

How do I get MATLAB?

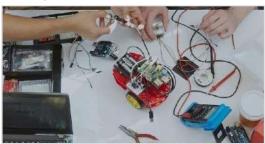
Download MATLAB through your Campus-Wide License. Follow the MATLAB Portal link, then click 'Sign in to get started'.



What can I do with MATLAB and Simulink?

mathworks.com/academia/students

Create cool projects, join student competitions, do innovative research, and more.



How are MATLAB and Simulink used in industry?

- blogs.mathworks.com/headlines
- mathworks.com/solutions

I'm new to MATLAB. Where should I start?

Learn the basics or get a refresher even before classes start. Check out MATLAB Onramp for an online, interactive, self-paced course (2 hours). Select 'Start learning now' on Portal.





Can I use MATLAB on my Phone or Web Browser?

mathworks.com/products/matlab-online mathworks.com/products/matlab-mobile

Use MATLAB Online and the MATLAB Mobile app to run MATLAB from a browser or connect to a MATLAB session on the cloud.





Need help using MATLAB and Simulink?

Get Installation Help: mathworks.com/support **Watch Videos:** mathworks.com/videos

Get Code Examples: mathworks.com/examples

MATLAB Community: mathworks.com/matlabcentral



Research with MATLAB

Tools and Reference Material for The Hindustan Institute of Technology and Science.

Researchers require platforms that let them explore and express new ideas, solve difficult problems, and create tools, leveraging a robust and flexible computational foundation.

MATLAB and Simulink are widely used across industries for research and product development, so you can apply your research to interesting and challenging real-world examples.

Find out more: mathworks.com/academia/research

What can MATLAB be used for?

- Solutions by capability, application or industry
- Videos

How do I use MATLAB?

- Discovery pages with resources
- Examples

Does MATLAB interface with ...?

- Python, C/C++, .NET, Java
- Industrial, educational and mobile hardware

Where do I get help?

- Community File Exchange
- Community Discussion & Q&A

Who else is using MATLAB?

- User stories
- Technical articles & newsletters



Trending topics:

- Deep Learning with MATLAB
- Automated Driving
- Parallel and GPU Computing
- 5G Communication Systems Modeling
- Arduino Engineering Kit
- MATLAB and Simulink for Neuroscience
- In the Headlines





MATLAB Campus-Wide License Installation Guide

Hindustan Institute of Technology and Science

now offers a Campus-Wide License to MATLAB, Simulink, and companion products. All faculty, researchers, and students are eligible to download and install these products on their college computers as well as their personally-owned computers. Use the latest versions of MATLAB and Simulink and other MathWorks products to support your course work and research.



MATLAB&SIMULINK®





The next two sections outline instructions on obtaining access to MATLAB. You will first need to associate to the **Hindustan Institute of Technology and Science** MATLAB Campus-Wide License and then install MATLAB.

<u>To associate to the Campus-Wide License, Open the Hindustan Institute of Technology and Science MATLAB Portal or simply scan the QR Code:</u>

- 1. Click on Sign-In to get started
- 2. Sign in using your MathWorks Account with your **Hindustan Institute of Technology** and **Science** email address.
- 3. If you do not have a MathWorks Account with your **Hindustan Institute of Technology** and **Science** email address, click on Create Account
- Complete the steps to create your MathWorks Account (If you have any trouble creating an account, contact MathWorks Customer Service via <u>info@mathworks.in</u> or + 91-80-6632-6000)
- 5. Once logged in on the <u>Portal</u>, you would automatically be associated to the <u>Hindustan</u> Institute of Technology and Science MATLAB Campus-Wide License.

<u>Link and QR Code to access the Hindustan Institute of Technology and Science MATLAB</u>

<u>Portal</u>

Link: https://in.mathworks.com/academia/tah-portal/hindustan-institute-of-technology-and-science-31239439.html

QR CODE:









Steps To Install MATLAB

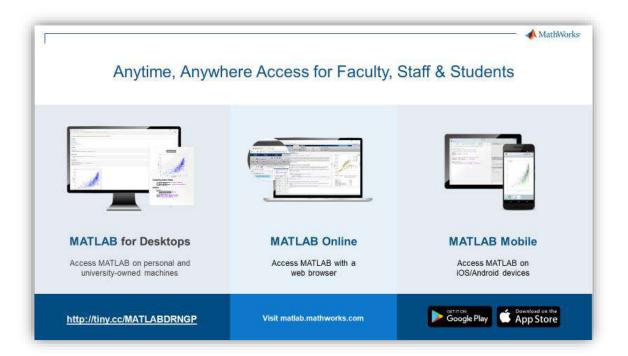
- Click the download button for the current release. (Users can also download previous releases here).
- Choose a supported platform and download the installer.
- Run the installer.
- In the installer, select Log in with a MathWorks Account and follow the online instructions.
- When prompted to do so, select the Academic Total Headcount license labeled Individual.
- Select the products you want to download and install.
- After downloading and installing your products, keep the Activate MATLAB checkbox selected and click Next.
- Select "Activate automatically using the internet."
- Log into your MathWorks account
- Select the Academic Total Headcount license labeled Individual.
- Click "finish" to complete the activation process.

For any installation issues, contact the MathWorks Install Support team at: lnfo@mathworks.in or call + 91-80-6632-6000 (Option 3).









MATLAB Online - Use MATLAB in a web browser without installing, configuring, or managing any software.

https://www.mathworks.com/products/matlab-online.html

<u>MATLAB Mobile</u>- Evaluate MATLAB commands, create and edit files, visualize data, and view results – all from your iPhone, iPad, or Android device.

https://www.mathworks.com/products/matlab-mobile.html

MATLAB Drive - MATLAB Drive provides a common cloud-based storage location for your MATLAB file. https://in.mathworks.com/products/matlab-drive.html#explore-matlab-drive

<u>Learn to Use MATLAB and Simulink</u> - MATLAB Onramp, Simulink Onramp and Deep Learning Onramp (free 2-hour overview of MATLAB) and other course offerings.

https://www.mathworks.com/products/campus-wide-training.html

MATLAB Help- Provides link to installation support and documentation.

https://www.mathworks.com/support/contact us.html?s tid=tah po helpbutton rvce







Self-Paced, Online Training for MATLAB and Simulink

Getting Started











Introduction – 8 Hours

Computational Mathematics

*Available only to users at universities that offer campus-wide online training access.











Computational Mathematics with MATLAB-9 Hours

Core MATLAB







Core MATLAB Functionality & Data Science -100 Hours

Data Science





<u>Note:</u> Course Completion certificate provided upon **COmpleting** the Each course.





Organized Alphabetically

5G Toolbox

Aerospace Blockset Aerospace Toolbox

Antenna Toolbox

Audio Toolbox

Automated Driving Toolbox

AUTOSAR Blockset

Bioinformatics Toolbox

Communications Toolbox

Computer Vision Toolbox

Control System Toolbox

Curve Fitting Toolbox

Data Acquisition Toolbox

Database Toolbox

Datafeed Toolbox

DDS Blockset

Deep Learning HDL Toolbox

Deep Learning Toolbox

DSP System Toolbox

Econometrics Toolbox

Embedded Coder

Filter Design HDL Coder

Financial Instruments Toolbox

Financial Toolbox

Fixed-Point Designer

Fuzzy Logic Toolbox

Global Optimization Toolbox

GPU Coder

HDL Coder

HDL Verifier

Image Acquisition Toolbox Image Processing Toolbox

Instrument Control Toolbox

Lidar Toolbox

LTE Toolbox

Mapping Toolbox

MATLAB

MATLAB Coder

MATLAB Compiler

MATLAB Compiler SDK

MATLAB Grader

MATLAB Parallel Server

MATLAB Production Server

MATLAB Report Generator

MATLAB Web App Server

Mixed-Signal Blockset

Model Predictive Control Toolbox

Model-Based Calibration Toolbox

Motor Control Blockset

Navigation Toolbox

Online Training Suite

OPC Toolbox

Optimization Toolbox

Parallel Computing Toolbox

Partial Differential Equation

Toolbox

Phased Array System Toolbox

Polyspace Bug Finder

Polyspace Code Prover

Powertrain Blockset

Predictive Maintenance Toolbox

Radar Toolbox

Reinforcement Learning Toolbox

RF Blockset

RF Toolbox

Risk Management Toolbox

Roadrunner

Roadrunner Asset Library

Robotics System Toolbox

Robust Control Toolbox

ROS Toolbox

Satellite Communications

Toolbox

Sensor Fusion and Tracking

Toolbox

SerDes Toolbox

Signal Processing Toolbox

SimBiology

SimEvents

Simscape

Simscape Driveline

Simscape Electrical

Simscape Fluids

Simscape Multibody

Simulink

Simulink 3D Animation

Simulink Check

Simulink Code Inspector

Simulink Coder

Simulink Compiler

Simulink Control Design

Simulink Coverage

Simulink Design Optimization

Simulink Design Verifier

Simulink Desktop Real-Time

Simulink PLC Coder

Simulink Real-Time

Simulink Report Generator

Simulink Requirements

Simulink Test

SoC Blockset

Spreadsheet Link

Stateflow

Statistics and Machine Learning

Toolbox

Symbolic Math Toolbox

System Composer

System Identification Toolbox

Text Analytics Toolbox

UAV Toolbox

Vehicle Dynamics Blockset

Vehicle Network Toolbox

Vision HDL Toolbox

Wavelet Toolbox

Wireless HDL Toolbox

WLAN Toolbox







Organized by Application

MATLAB Product Family MATLAB

tion Deployment

MATLAB Compiler MATLAB Compiler SDK MATLAB Production Server MATLAB Web App Server

Embedded Coder Filter Design HDL Coder Fixed-Point Designer GPU Coder HDL Coder HDL Verifier MATLAB Coder

MATLAB Parallel Server Parallel Computing Toolbox

Database Access

Database Toolbox MATLAB Report Generator

Simulink Product Family Simulink

Lootication Deployment

Simulink Compiler

AUTOSAR Blockset **DDS Blockset** Embedded Coder Fixed-Point Designer HDL Coder HDL Verifier Simulink Code Inspector Simulink Coder Simulink PLC Coder

Physical and Event-Based Modeling

SimEvents Simscape Simscape Driveline Simscape Electrical Simscape Fluids Simscape Multibody Simulink 3D Animation Stateflow

on and Testing

Simulink Desktop Real-Time Simulink Real-Time

Simulink Report Generator

vistems Engineering

System Composer

rification, Validation, and Test

Polyspace Bug Finder Polyspace Code Prover Simulink Check Simulink Coverage Simulink Design Verifier Simulink Requirements Simulink Test

Application Products

Aerospace Blockset Aerospace Toolbox UAV Toolbox

Al, Data Science, and Statistics

Deep Learning Toolbox Deep Learning HDL Toolbox Predictive Maintenance Toolbox Reinforcement Learning Toolbox Statistics and Machine Learning Toolbox Text Analytics Toolbox

Automated Driving Toolbox AUTOSAR Blockset Model-Based Calibration Toolbox Powertrain Blockset RoadRunner RoadRunner Asset Library Vehicle Dynamics Blockset Vehicle Network Toolbox

Automated Driving Toolbox Navigation Toolbox RoadRunner RoadRunner Asset Library Robotics System Toolbox ROS Toolbox Sensor Fusion and Tracking Toolbox UAV Toolbox

Polyspace Bug Finder Polyspace Code Prover

Bioinformatics Toolbox SimBiology

mai Finance

Database Toolbox Datafeed Toolbox Econometrics Toolbox Financial Instruments Toolbox Financial Toolbox Risk Management Toolbox Spreadsheet Link

Control System Toolbox Fuzzy Logic Toolbox

Model Predictive Control Toolbox Motor Control Blockset Predictive Maintenance Toolbox Reinforcement Learning Toolbox Robust Control Toolbox Simulink Control Design Simulink Design Optimization System Identification Toolbox

FPGA, ASIC, and SoC Development

Deep Learning HDL Toolbox Filter Design HDL Coder Fixed-Point Designer HDL Coder HDL Verifier SoC Blockset Vision HDL Toolbox Wireless HDL Toolbox

mage Processing and Computer Vision

Computer Vision Toolbax Image Processing Toolbox Lidar Toolbox

Math and Optimizati Curve Fitting Toolbox Global Optimization Toolbox Mapping Toolbox Optimization Toolbox Partial Differential Equation Toolbox Symbolic Math Toolbox

RF and Mixed Signal

Antenna Toolbox Mixed-Signal Blockset RF Blockset RF Toolbox SerDes Toolbox

Signal Processing

Audio Toolbox DSP System Toolbox Phased Array System Toolbox Radar Toolbox Signal Processing Toolbox Wavelet Toolbox

Data Acquisition Toolbox Image Acquisition Toolbox Instrument Control Toolbox OPC Toolbox Vehicle Network Toolbox

ess Communications

5G Toolbox Communications Toolbox LTE Toolbox Satellite Communications Toolbox WLAN Toolbox

Academic Resources MATLAB Grader

Online Training Suite

