

पं० रविशंकर शुक्ल विश्वविद्यालय, रायपुर (छ०ग०)

क्र0 139/विकास/2025

रायपुर, दिनांक 04/03/2025

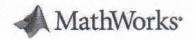
।। दावा आपत्ति सूचना।।

सर्वसधारण को सूचित किया जाता है कि विश्वविद्यालय के उपयोग हेतु निम्नलिखित सॉफ्टवेयर सांपत्तिक प्रवृत्ति (Properietry Article) की श्रेणी के अंतर्गत क्रय किया जा रहा है :--

- 1. MATLAB Campus wide License (CWL) Software
- 2. Cadence VLSI University Research Bundle
- 3. VLSI Lab Tool Under CoreEL University Program
- 4. Silvaco Victory 3D Bundle Research Bundle

सांपत्तिक क्य की श्रेणी के अंतर्गत क्य के संबंध में किसी निर्माता कंपनी को यदि कोई आपित हो तो दिनांक 04/04/2025 तक मयसुसंगत दस्तावेज विकास विभाग, पं.रविशंकर शुक्ल विश्वविद्यालय, रायपुर (छ.ग.) में प्रस्तुत करें। दिनांक 04/04/2025 के पश्चात प्राप्त दावा आपित पर कोई विचार नहीं किया जायेगा।

<u>्रकुल</u>शचिव



1 January 2024

TO WHOMSOEVER IT MAY CONCERN

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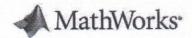
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Jaure Hardy.

By:

Laura Nardi

Director of Business Model Support



04 March 2024

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This authorization is valid through March 31, 2025.

MathWorks does not quote products in the education sector in this region and does not authorize any other agency or firm to do so.

Please contact Rishi Khemka of Ark Infosolutions Private Limited if you have any questions.

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Regards,

Kumar Bakthavatchalu

Director, MathWorks India Private Limited







MATLAB Campus-wide License (CWL) benefits for Pt. Ravi Shankar Shukla University, Raipur

- Unlimited License: MATLAB Campus wide license is available to all Faculty, Researchers, and students (UG, PG etc) everywhere on and off campus: at hostel, home, and classroom, in Lab's and field research and while travelling for Academic/ Educational use.
- MATLAB Online & Cloud access: MATLAB Campus license contains MathWorks own Cloud environment via
 "MATLAB Online" and "Simulink Online" accessible to all Campus License users of Individual license type. This
 system is suited to support current Online or Virtual classes, where students and faculties can access all
 MATLAB products sitting at their own place anywhere flexibly via Online browser as well as physical
 installation at individual Home Desktops or Laptops.
- MATLAB Mobile Connect to MATLAB from users iPhone, iPad, or Android device.
- MATLAB Drive Store, access, and manage your MATLAB files from anywhere.
- Open access to scaling for MATLAB programs and Simulink simulations to clusters, clouds, and HPC
- One license, which eases license management and ensures software license compliance through central administration; it also integrates easily into bring-your-own-device (BYOD) programs.
- The software can be installed in Laptops/ desktops of faculty & student at home and college housed Computers. Number of License are unlimited, to be used by complete academic community of NIT Raipur with domain email ID.
- MATLAB Campus Suite License has all products currently available for Academic users as well as products which MathWorks shall release under warrantee period, shall be automatically added.
- License period validity: License is for 1 (one) year & to be renewed after expiry. Annual/Term license provides a more predictable cost model for budget planning. The software will be under warranty for full duration & always on latest version.
- Access to MATLAB and all its products covering different application areas. Annexure-A highlights list of currently available Full Suite products.
- Self-paced Online trainings: Faculties, students & researchers have unlimited access to 26+ online training modules at https://matlabacademy.mathworks.com/ with 100+ hours of self paced trainings to:
 - →Learn essential MATLAB and Simulink skills on-demand.
 - → Bring MATLAB/Simulink to the classroom—focus on teaching subject-matter rather than software.
 - → Learn through hands-on practice and contextual feedback.
 - → Access over 100 hours of content with for a variety of topics
 - → PDF Certificates are also available on completion.
- MATLAB Grader for automatic assessment:
 - → Create assignments that require students to submit MATLAB code.
 - → Set custom scoring rubrics and view detailed reports and learner analytics.
 - → Automatically grade student work and provide instant feedback to improve learning.
 - → Run web-based assignments in any learning environment.

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Prepared Exclusively for Pt. Ravi Shankar Shukla University-Raipur

03-04-2024

Campus-Wide License

The world's leading mathematical computing software for engineering and science instruction, research, and development, MATLAB and Simulink are widely used by students, faculty, and researchers for project-based learning and collaborative research projects. MathWorks Campus-Wide License for MATLAB and Simulink prepares students for careers in industry, where the tools are widely used for data science and machine learning, mathematical modeling, and algorithm development in collaborative research and new product development.

MathWorks Campus-Wide License provides access to MATLAB and Simulink for all faculty and students whenever, wherever they need. Users can teach, learn, and conduct research with MATLAB and Simulink on personal computers both on and off campus and in university labs. MathWorks Campus-Wide License also enables collaboration with campus visitors.

The Campus-Wide License includes MATLAB and Simulink Full Suite, a comprehensive set of products that support everything from introductory level courses to advanced academic research.

In addition to anytime, anywhere access to the software, the Campus-Wide License includes a range of support:

- MATLAB Portals: Give end users self-serve access to the software and learning resources
- Unlimited use of MATLAB and Simulink products to all students, faculty, staff & researchers, on & off campus, on any device
- Automated License Association and Compliance: Simplify license administration
- Self-Paced Online Training: Allow students and researchers to learn MATLAB on their own time on wide range of topics and perform collaborative research, covering introductory-level courses to advanced academic research
- MATLAB Grader: Auto grade MATLAB homework and interactive course assignments with instant feedback on problems via LMS integration
- Customer Success Engineers: Receive expert consultation on curriculum development and innovation
- Customer Success Specialists: A dedicated Customer Success team to support you from license launch to campus-wide rollout and beyond
- Open access to scaling for MATLAB programs and Simulink simulations to clusters, clouds, and HPC centers
- Annual license that provides a more predictable cost model for budget planning
- One license, which eases license management and ensures software license compliance through central administration; it also integrates easily into bring-your-own-device (BYOD) programs

Impact and benefits of a Campus-Wide License. More than 1700 universities worldwide and 30+ Institutes in MP, CG and Tamil Nadu have converted to the Campus-Wide License, including below few institutions:





"We can engage students in leading-edge research. The tools enable the research group and the student—including biology majors and engineers—to focus on research and spend less time programming."

Dr. Gil Alterovitz, MIT and Harvard University

"Our students can do both modeling and analysis, and then develop an embedded controller without switching software platforms. That is invaluable."

Dr. Joel Anstrom, Penn State University

"Students have the flexibility of working where and when they choose in addition to lowering the demand and cost of supporting public labs."

Dean Mark Kushner and Chris McCoy, Iowa State University

Preparing Students for Careers

The 2100+ universities that depend on the Campus-Wide License are diverse, but they share at least one common objective. Every institution is focused on preparing students for successful careers in a competitive and changing world. Universities that recognize the need to build student skills in complex problem solving, critical thinking, and data analysis will find the tools and curriculum support they need in the Campus-Wide License.

MATT AR in

Industry: Govt and Commercial companies who have MATLAB.

Numerous current job opportunities in India seeking candidates with

MATLAB skills at various job portals

- · Robert Bosch
- · Honey Well
- Tata Motors
- · Renault Nissan
- DRDO
- · DOS Organisations
- · Biotech & Life Sciences
- Information & Electronics
- Earth & Ocean Science
- Financial Services
- · Medical Devices
- · Aeospace & Defense

"If you want to work at Google, make sure you can use MATLAB."

Jonathan Rosenberg,
 Senior Vice President

Computational Thinking throughout the Curriculum

The ability to solve problems computationally – to think logically and algorithmically – has become a core competency for fields as varied as science, engineering, mathematics, and business. Students who can use computational tools to model and visualize data possess vital skills that are in demand across industry and academia.

MATLAB and Simulink support and enable core computational thinking tasks and a range of related applications, such as computational finance and biology; data analysis, including machine learning, deep learning; and signal and image processing. The ability to "speak MATLAB" positions students to communicate, share ideas, and collaborate using a common language trusted by engineers and scientists worldwide.



"Computational thinking is a fundamental skill for everyone, not just for computer scientists."

> Dr. Jeannette Wing, Vice President of Microsoft Research Former Department Head of CS at Carnegie Mellon University

"Coding teaches me to think in a logical way"



MathWorks has <u>a web page of courseware</u>, online resources, and software tools to support the integration of computational thinking across the curriculum.



Interdisciplinary Foundation

"A report from the National Academies of Sciences, Engineering, and Medicine [...] asserts that an 'emerging body of evidence' shows that STEMM integration with the humanities 'is associated with positive learning outcomes that may help students enter the workforce, live enriched lives, and become active and informed citizens." – NMC Horizon Report: 2018 Higher Education Edition

A Campus-Wide License provides a common set of tools for use between departments and across institutions. This product configuration gives everyone access to over 90 products with applications across multiple disciplines. Researchers and students get access to the same set of tools used by professionals in STEM disciplines, business, and hu ies.

Scalable Computing Infrastructure

"Our teams are here to do world-class research, and easy access to MATLAB enables them to be their most productive. The Campus-Wide License removed limitations for our researchers while reducing the administrative burden—exactly what we wanted to achieve."

— Shailesh Shenoy, Senior Associate, Director of Research Computing, Albert Einstein College of Medicine

Deployment of MATLAB and Simulink is streamlined and centralized through a custom portal hosted by MathWorks. Cloud-based offerings like MATLAB Online allow users to store, manage, and access files anywhere without downloading or installing MATLAB. MATLAB Distributed Computing Server lets you run computationally intensive MATLAB programs and Simulink models on computer clusters and clouds.

Customer Success Partnership and Onboarding Program

A dedicated MathWorks Customer Success Specialist will work with you and your colleagues to:

- Set up a portal so users can easily download software and access additional resources
- ✓ Create a rollout plan using customized email templates, posters, digital signage, news articles, and more
- Announce the license to everyone on campus including existing users, who will be excited to have unlimited access to the tools they need to teach their courses, conduct research, and complete project-based assignments

Your custom portal reduces IT overhead by providing:

- ✓ A self-serve solution that gives faculty, researchers, and students a guided path to download and activate software
- ✓ Built-in compliance through an official university email domain
- ✓ The option to implement Federated Identity Management (Shibboleth) for added security
- ✓ Visibility to the resources included with your Campus-Wide License, including MathWorks support, online training, and tools to enhance curriculum

A dedicated MathWorks Customer Success Engineer will partner with you institution to achieve success for students, faculty, and researchers:

- ✓ Provide technical consultations to improve computational productivity
- ✓ Support faculty innovation and curriculum development

Online Courses for Everyone on Campus:

MathWorks offers access to online training courses to everyone on campus.

· Learn essential MATLAB and Simulink skills on-demand

Learn more: mathworks.com/products/campus-wide-training

- Bring MATLAB and Simulink to the classroom focus on teaching the subject-matter rather than the software
- Learn through hands-on practice and contextual feedback
- Access over 100 hours of content with for a variety of topics

See how campus-wide access to online training is making a difference at Politecnico di Milano.





MATLAB Grader:

MATLAB Grader makes it easier to include graded MATLAB assignments in your course. With it, you can:

- Create assignments that require students to submit MATLAB code
- Set custom scoring rubrics and view detailed reports and learner analytics
- · Automatically grade student work and provide instant feedback to improve learning
- Run web-based assignments in any learning environment
- Learn more: mathworks.com/products/matlab-grader

Courseware:

- Downloadable sets of curriculum materials for educators based on MATLAB and Sim Learn through hands-on practice and contextual feedback
- Curriculum materials for many courses from engineering and the sciences to economics and finance
- · Over 2000 books based on MATLAB and Simulink, reflecting widespread use in research and teaching
- Learn more: mathworks.com/academia/courseware

Additional Resources:

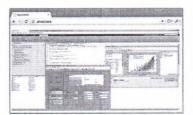
- MATLAB Online and Simulink Online Access to MATLAB and Simulink from your web browser
- MATLAB Mobile Connect to MATLAB from your iPhone, iPad, or Android device
- MATLAB Drive Store, access, and manage your MATLAB files from anywhere
- Hadware Connectivity Support Packages Connect to hardware with MATLAB and Simulink
- Resources for Introducing the Campus-Wide License Materials to let everyone know to download and start using the tools



MATLAB on PCs Clusters Cloud



MATLAB Mobile



MATLAB Online and Simulink Online



Online Training Courses



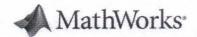
MATLAB Courseware



Hands-on Learning with Hardware



Scalable Computing Infrastructure



Annexure 'A'- Products on Campus-Wide Licenses (Version 2024b)

5G Toolbox

Aerospace Blockset

Aerospace Toolbox

Antenna Toolbox

Audio Toolbox

Automated Driving Toolbox

AUTOSAR Blockset

Bioinformatics Toolbox

Bluetooth Toolbox

Communications Toolbox

Computer Vision Toolbox

Control System Toolbox

Curve Fitting Toolbox

C2000 Microcontroller Blockset

Data Acquisition Toolbox

Database Toolbox

Datafeed Toolbox

DDS Blockset

Deep Learning HDL Toolbox

Deep Learning Toolbox

DSP HDL 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

Industrial Communication 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 Test

MATLAB Web App Server

Medical Imaging Toolbox

Mixed-Signal Blockset

Model Predictive Control Toolbox

Model-Based Calibration Toolbox

Motor Control Blockset Navigation

Toolbox

Online Training Suite

Optimization Toolbox

Parallel Computing Toolbox

Partial Differential Equation

Toolbox

Phased Array System Toolbox

Polyspace Bug Finder

Polyspace Code Prover

Polyspace Test

Powertrain Blockset

Predictive Maintenance Toolbox

Radar Toolbox

Reinforcement Learning Toolbox

Requirements Toolbox

RF Blockset

RF Toolbox

RF PCB Toolbox

Risk Management Toolbox

Roadrunner

Roadrunner Asset Library

Roadrunner Scenario

Roadrunner Scene Builder

Robotics System Toolbox

Robust Control Toolbox

ROS Toolbox

Satellite Communications Toolbox

Sensor Fusion and Tracking Toolbox

SerDes Toolbox

Signal Processing Toolbox

Signal Integrity Toolbox

SimBiology

SimEvents

Simscape

Simscape Battery

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 Fault Analyzer

Simulink PLC Coder

Simulink Real-Time

Simulink Report Generator

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

Wireless Testbench

WI AN Toolbox

Products new to Campus-Wide Licenses as of this release in BOLD







System requirements for latest MATLAB R2024b

Please refer URL: https://in.mathworks.com/support/requirements/matlab-system-requirements.html

Windows

Operating System	Processor	Storage	RAM	Graphics	
64-Bit MATLAB and Simu	link Product Families (Not available in 32	-bit)		
Windows 11 (version 22H2 or higher) Windows 10 (version 22H2) Windows Server 2022	Minimum: Any Intel or AMD x86-64 processor with two or more cores Recommended: Any	4.2 GB for just MATLAB. 4-6 GB for a typical installation	Minimum: 8 GB Recommended: 16 GB	No specific graphics card required, but a hardware accelerated graphics card supporting OpenGL 3.3 with 1GB GPU memory is recommended.	
	Intel or AMD x86-64 processor with four or more cores and AVX2 instruction set support Note: A future release of MATLAB will require a processor with AVX2 instruction set support	24 GB for an all products installation An SSD is strongly recommended		GPU acceleration using Parallel Computing Toolbox requires a GPU with a specific range of compute capability. For more information, see GPU Computing Requirements.	

MAC

Operating System	Processor	Storage	RAM	Graphics
64-Bit MATLAB and Simul	link Product Families (I	Not available in 32	2—bit)	
macOS Sequoia (15) macOS Sonoma (14)	Minimum: Any Intel x86-64 processor with two or more cores Recommended: Any	3.8 GB for just MATLAB	Minimum: 8 GB Recommended: 16 GB	Any Mac able to run macOS Monterey hasa GPU able to run MATLAB.
macOS Ventura (13.6	Intel x86-64 processor with four or more cores and AVX2 instruction set support	installation	GB	GPU acceleration with Parallel Computing Toolbox is not available
Note: macOS Monterey is no longer supported.	Note: A future release of MATLAB will require a processor with AVX2 instruction			on macOS.
	set support Apple Silicon: Minimum: Any M-series chip	An SSD is strongly recommended		

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	II		

Operating System	Processor	Storage	RAM	Graphics
64–Bit MATLAB and Simulink P	roduct Families (N	ot available in 32–	bit)	
Ubuntu 24.04 LTS Ubuntu 22.04 LTS Ubuntu 20.04 LTS Debian 12 Debian 11 Red Hat Enterprise Linux 9 Red Hat Enterprise Linux 8 (minimum 8.6) Red Hat Enterprise Linux 7 (minimum 7.9) SUSE Linux Enterprise Desktop 15 SUSE Linux Enterprise Server 15 Note: Red Hat Enterprise Linux 7 and SUSE Linux Enterprise Server 12 are no longer supported.	Minimum: Any Intel or AMD x86-64 processor with two or more cores Recommended: Any Intel or AMD x86-64 processor with four or more cores and AVX2 instruction set support Note: A future release of MATLAB will require a processor with AVX2 instruction set support	4-6 GB for a typical installation	Minimum: 8 GB Recommended: 16 GB	No specific graphics card is required, but a hardware accelerated graphics card supporting OpenGL 3.3 with 1GB GPU memory is recommended. Use of vendor-supplied proprietary drivers is strongly recommended. GPU acceleration using Parallel Computing Toolbox requires a GPU with a specific range of compute capability. For more information, see GPI Computing Requirements

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