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Vidyavardhini's College Of Engineering & Technology, Vasai Road

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(Approved by AICTE, DTE Maharashtra and Affiliated to University of Mumbai)

NBA & NAAC Accredited

Industry Sponsored Lab-Robotics

Home»Industry Sponsored Robotics Lab

Industry Sponsored Lab by Performance Speciality Products India Pvt. Ltd.Industry sponsoredRobotics Labdesignated as a Centre of Excellence (CoE) atVidyavardhinis College of Engineering & Technologyserves as a pivotal hub for pioneering advancements in robotics and automation. It symbolizes a commitment to pushing the boundaries of technology, fostering a culture of innovation, and addressing complex challenges through cutting-edge research and development. The establishment of such a centre is not merely an institutional achievement but a transformative initiative that aims to shape the future of industries, healthcare, education, and beyond.

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Objectives :Innovation and Research: The primary goal of the Robotics Lab is to drive innovation through rigorous research and development. The lab focuses on creating groundbreaking technologies and solutions that can redefine various sectors, from manufacturing to healthcareEducational Excellence: By integrating robotics with the curriculum, lab aims to equip students with the skills and knowledge necessary to excel in the evolving landscape of technology. It provides hands-on experience, fostering a deep understanding of robotics principles and applications.Industry Collaboration: Lab seeks to build strong partnerships with industry leaders, enabling the translation of academic research into practical, real-world applications. These collaborations facilitate the development of commercially viable products and solutions.Societal Impact: The lab is dedicated to leveraging robotics to address societal challenges, such as improving healthcare delivery, enhancing disaster response, and advancing environmental sustainability. Also strives to create solutions that have a meaningful impact on society.Talent Development: The lab is committed to nurturing the next generation of robotics experts and innovators. It provides a platform for students, researchers, and professionals to develop their skills and contribute to the field of robotics.

Objectives :

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Impact and Future VisionThe Robotics Lab CoE aims to have a profound impact on various sectors by developing technologies that enhance efficiency, productivity, and safety. It envisions a future where robotics plays a crucial role in solving global challenges, from improving healthcare and education to enhancing industrial automation and sustainability.By establishing a Centre of Excellence in robotics, the institute demonstrate their commitment to leading the way in technological innovation and making significant contributions to society.

Impact and Future Vision

The Robotics Lab CoE aims to have a profound impact on various sectors by developing technologies that enhance efficiency, productivity, and safety. It envisions a future where robotics plays a crucial role in solving global challenges, from improving healthcare and education to enhancing industrial automation and sustainability.

? State-of-the-Art Infrastructure: The Robotics Lab CoE is equipped with cutting-edge facilities, including advanced robotic platforms, simulation tools, and testing environments. These resources enable researchers and students to conduct high-quality experiments and develop innovative solutions.? Interdisciplinary Approach: The lab fosters collaboration across various disciplines, and this interdisciplinary approach is essential for addressing the complex and multifaceted challenges in robotics.? Advanced Research Programs: The lab supports a wide range of research programs focusing on areas such as autonomous systems, human-robot interaction and machine learning. These programs aim to push the frontiers of knowledge and technology.? Innovation Hub: The lab

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serves as an innovation hub, encouraging the development of startup companies and fostering an entrepreneurial spirit among researchers and students. It provides support for turning innovative ideas into successful ventures.

Yasaka Robotic ArmModel no. YS07-930Number of axes 6Max. Payload 7 kgMax. Stroke 930 mmApprox. weight 60 kg (without cabinet)Rotrics DexArmDexArm is a 4-axis desktop robot arm with modular design and 0.05mm high repeatability. It can be easily turned into a desktop plotter, laser engraver, and 3D printer.Including:DexArm3D Printing ModuleLaser Engraving ModuleRotary Soft Gripper ModuleRotary Suction Cup ModulePen Holder Module3.5-inch TouchscreenRotrics Studio Software (All functions and Scratch programming included)PLA FilamentYasaka Robotic ArmRotrics DexArm

Model no. YS07-930

Number of axes 6

Max. Payload 7 kg

Max. Stroke 930 mm

Approx. weight 60 kg (without cabinet)

DexArm is a 4-axis desktop robot arm with modular design and 0.05mm high repeatability. It can be easily turned into a desktop plotter, laser engraver, and 3D printer.

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Including:

Yasaka Robotic Arm

Rotrics DexArm

PLC Automation and Drives

:At VCET, we understand the importance of elevating student?s skills in adapting to newer challenges and value the returns of investing in technical skill enhancement. Since last year, Siemens Centre of excellence at VCET is established to provide training for our students in the field of Automation & Drives. The training module encompasses a wide range of courses designed for PLCs, Drives, Controls, HMI, Networks, Process Control, and more. Which subsequently translates into effective, flexible, and value based training and real results in productivity, cost reductions and process optimization. Through specific courses designed for students, each course schedule consists of well balanced theory and provides hands-on training to optimize the knowledge about the products. Our fleet of experienced trainers ensures that each participant makes a contribution towards productivity and performance improvement in this organization.This centre assist students to come up with their own new project ideas and implement them. Center is equipped with various kits of Siemens. kits are available under three sections which are as follows:SIMATIC S7 1200 PLC kit with HMI (A set of 6 kits package)SINAMICS G120 Trainer (set of 5 kitsSINAMICS DCM 6RA80 Trainer with DC Motors (A set of 2 kits)Students can have hands on practice on these kits and learn

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about it.

PLC Automation and Drives

:

At VCET, we understand the importance of elevating student?s skills in adapting to newer challenges and value the returns of investing in technical skill enhancement. Since last year, Siemens Centre of excellence at VCET is established to provide training for our students in the field of Automation & Drives. The training module encompasses a wide range of courses designed for PLCs, Drives, Controls, HMI, Networks, Process Control, and more. Which subsequently translates into effective, flexible, and value based training and real results in productivity, cost reductions and process optimization. Through specific courses designed for students, each course schedule consists of well balanced theory and provides hands-on training to optimize the knowledge about the products. Our fleet of experienced trainers ensures that each participant makes a contribution towards productivity and performance improvement in this organization.This centre assist students to come up with their own new project ideas and implement them. Center is equipped with various kits of Siemens. kits are available under three sections which are as follows:

Objectives :The main objective of Siemens Centre of excellence isTo bridge the gap between industry and academics.To provide a competitive edge by helping students to learn, analyze and apply theoretical concepts and develop Industry level technology.To provide experiential learning

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where students can solve real world problems using state of the art technical material.Sr. No.EventNo. of ParticipantsPeriodNo. of DaysDescriptionResource Person1.TTT Program for COE on Basic Drives0701/07/2019 to 05/07/2019.05Teachers training programMr. Rohit Thakur Trainer, SITRAIN, Siemens India Ltd2TTT Program for COE on S7 12000708/07/2019 to 12/07/2019.05Teachers training programMrs. Mangle Trainer, SITRAIN, Siemens India Ltd.3.Workshop on Basic Programming for PLC S7 12005217/08/201901One day workshop is arranged for third year students of Instrumentation EngineeringMr. Prafulla Patil And Mr. Vishal Pande Trainers Siemens Centre of Excellence4.Workshop on PLC HMI Communication5031/08/201901One day workshop is arranged for third year students of Instrumentation Engineering.Mr. Prafulla Patil And Mr. Vishal Pande Trainers Siemens Centre of Excellenc5.Workshop on Basic Programming for PLC S7 12007021/09/201901One day workshop is arranged for third year students of Mechanical Engineering.Mr. Vishal Pande And Mr. Kamlesh Bachkar Trainers Siemens Centre of Excellence6.Workshop on PLC HMI Communication7528/09/201901One day workshop is arranged for third year students of Mechanical Engineering.Mr. Prafulla Patil And Mr. Kamlesh Bachkar Trainers Siemens Centre of Excellence7.Basic PLC S7 1200 + HMI2520/01/ 2020 to 30/01/202010PLC and HMI Programming for students of Final year EngineeringMr. Prafulla Patil Mr. Vishal Pande Trainers Siemens Centre of Excellence8.Workshop on Basics of AC/DC Motors and Drives5805/10/201901One day workshop is arranged for third year students of Instrumentation Engineering.Mr. Prafulla Patil And Mr. Vishal Pande Trainers Siemens Centre of Excellence9.One day workshop is arranged for third year students of Mechanical Engineering.7312/10/201901One day workshop is arranged for third year students of Mechanical Engineering.Mr. Vishal Pande And Mr. Kamlesh Bachkar Trainers Siemens Centre of ExcellenceTeam Coordinators :1. Dr. Vikas Gupta2. Mr. Prafulla PatilMembers :1. Ms. Kanchan Sarmalkar2. Mr. Vishal Pande3. Ms. Ekta Naik4. Mr. Kamlesh Bachkar

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Objectives :

07

01/07/2019 to 05/07/2019.

05

05

01

50

70

01

Team Coordinators :

Members :

Benefits :Exposure to real industrial products.Hand on training on Siemens products & certification with Siemens instruments University program logo.shortened start-up times and faster

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troubleshooting for actual project development.Employability for students will increase.

Benefits :

PreviousNext

FacultyDepartmentDr. Vikas GuptaElectronics and Telecommunication EngineeringMr. Prafulla PatilInstrumentation EngineeringMs. Kanchan SarmalkarInstrumentation EngineeringMr. Vishal PandeInstrumentation EngineeringMs. Ekta NaikElectronics and Telecommunication EngineeringMr. Kamlesh BachkarMechanical Engineering

Menu

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