



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

[DEEMED TO BE UNIVERSITY]

Accredited "A++" Grade by NAAC | 12B Status by UGC | Approved by AICTE

www.sathyabama.ac.in

SCHOOL OF MECHANICAL ENGINEERING DEPARTMENT OF MECHANICAL ENGINEERING

1.3.3 Value Added Courses for Imparting transferable and life skills offered during 2022-2023

S. No.	Title	Event Dates	No. of students enrolled	No. of Students completed	Page No.
1	Solidworks	22.08.2022 to 08.09.2022	42	42	2
2	Ansys	10.10.2022 to 17.10.2022	49	49	8
3	Exploring Dynamics: The MSC Adams	05.11.2022 to 12.11.2022	44	44	13
4	Welding Technology	12.12.2022 to 16.12.2022	51	51	18
5	Solidworks	23.01.2023 to 11.02.2023	49	49	23
6	Ansys	20.03.2023 to 27.03.2023	42	42	29
7	Exploring Dynamics: The MSC Adams	07.04.2023 to 14.04.2023	52	52	34
8	Welding Technology	24.04.2023 to 28.04.2023	47	47	39

1. SOLIDWORKS (Phase – I)

The SolidWorks course tailored for undergraduate Mechanical Engineering students. This comprehensive program is designed to equip you with essential tools and commands to effectively use SolidWorks software. Throughout the course, you will be exposed to various practical examples and hands-on exercises that will enable you to proficiently model and assemble mechanical components and assemblies. By delving into computer-aided design applications, this course aims to enhance your skills, elevate your expertise, and expand your knowledge in this field.

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FREE REGISTRATION

CERTIFICATE WILL BE ISSUED

For more details and Registrations Contact:

Dr. J. Jeyajeevahan
Assistant Professor
Department of Mechanical Engineering
Mob: 91769 01505

Dr. Ram Prakash
Assistant Professor
Department of Mechanical Engineering
Mob: 7667797479

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INSTITUTE OF INDUSTRIAL DESIGN

SCHOOL OF MECHANICAL ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING

Organizes Training Program
on
SKILL DEVELOPMENT TRAINING - SOLIDWORKS (Phase - I)

OPEN TO ALL STUDENTS OF SCHOOL OF MECHANICAL ENGINEERING

Save the date :: 22nd August -- 08th September 2022

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COURSE OUTCOMES:

By the conclusion of this course, you will have achieved the following learning objectives:

- Master the construction of 2D sketches using SolidWorks, effectively translating your ideas into detailed digital representations.
- Skillfully prepare printable drawings and documentation, ensuring precise and accurate engineering designs for various projects.
- Acquire proficiency in creating 3D models, enabling you to conceptualize, visualize, and simulate complex mechanical structures and mechanisms.
- Develop the ability to assemble components into functional systems, facilitating the understanding of the interconnections and interactions within the mechanical assemblies.
- Gain insight into Finite Element Analysis (FEA) simulations, empowering you to evaluate the structural integrity and performance of your designs under various conditions.

- Enhance your problem-solving skills by tackling real-world design challenges, fostering creativity and innovation in your engineering solutions.
- Understand the principles of parametric modeling, enabling you to make design modifications with ease and efficiency.
- Cultivate a strong foundation in product design, enabling you to contribute to the development of cutting-edge innovations in the mechanical engineering industry.

Module	Topics	Name of the Faculty	No of Sessions	Venue
1	• SolidWorks • Introduction to SolidWorks • User Interface and Navigation • Working with Sketches • Cartesian Coordinate System • Creating and Opening Part Files • View Manipulation in SolidWorks	Dr. Ram Prakash	3 Hrs	CPDD Lab
2	• Basic Sketching and Editing • Creating Sketches • Modifying Sketch Geometry • Using Constraints and Dimensions • Geometric Relations • Extruding and Cutting Features • Revolve and Sweep Features • Fillets and Chamfers	Dr. Ram Prakash	2 Hrs	CPDD Lab
3	• Advanced Sketching • Sketch Planes and References • Advanced Constraints • Splines and Curves • Sketch Patterns • Equations and Smart Dimensions	Dr. Ram Prakash	2 Hrs	CPDD Lab
4	• Modeling with Solid Features • Creating Base and Boss Features	Dr. Ram Prakash	2 Hrs	CPDD Lab

	• Creating Cut and Hole Features • Shell and Rib Features • Draft and Fillet Analysis • Patterns and Mirroring Features			
5	• Assembly Basics • Introduction to Assemblies • Component Mates and Constraints • Top-Down and Bottom-Up Assembly Design • Subassemblies and Flexible Assemblies	Dr. Ram Prakash	2 Hrs	CPDD Lab
6	• Advanced Assembly Techniques • Smart Components • Assembly Features • Exploded Views and Animations • Interference Detection • Configurations and Design Tables	Dr. Ram Prakash	2 Hrs	CPDD Lab
7	• Introduction to Drawings • Creating New Drawing Sheets • Adding Views to Drawings • Dimensioning and Annotations • Bill of Materials (BOM) • Editing and Managing Drawings	Dr. Ram Prakash	2 Hrs	CPDD Lab
8	• Advanced Drawing Techniques • Section Views and Broken Views • Detail Views and Auxiliar Views • Customizing Drawing Templates • Tolerances and Geometric Dimensioning and Tolerancing (GD&T)	Dr. J. Jeyajeevahan	2 Hrs	CPDD Lab
9	• Working with Sheet Metal • Sheet Metal Fundamentals • Creating Sheet Metal Parts	Dr. J. Jeyajeevahan	2 Hrs	CPDD Lab

	• Sheet Metal Bends and Unfolds • Flat Patterns and Bend Tables			
10	• Surfacing • Introduction to Surfacing • Creating Loft and Boundary Features • Sweep and Fill Features • Surface Trim and Knit	Dr. J. Jeyajeevahan	2 Hrs	CPDD Lab
11	• Weldments • Creating Structural Frames • Applying Weldments and Members • Working with Cut List and Weldment Drawings	Dr. J. Jeyajeevahan	2 Hrs	CPDD Lab
12	• Simulation and Analysis • Introduction to Simulation • Applying Loads and Constraints • Running and Interpreting Simulations	Dr. J. Jeyajeevahan	2 Hrs	CPDD Lab
13	• Introduction to Mold Design • Creating Mold Bases • Parting Lines and Surfaces • Draft Analysis and Mold Tools	Dr. J. Jeyajeevahan	2 Hrs	CPDD Lab
14	• Rendering and Animation • Applying Appearances and Textures • Creating Photo-Realistic Renderings • Animating Assemblies and Components • Presenting Designs and Explaining Concepts	Dr. J. Jeyajeevahan	3 Hrs	CPDD Lab

Participants list:

Sl. No	Reg No	Name
1	40150001	ADNAN SAMI. S
2	40150002	ARON JEFFERYLAL. A
3	40150004	DARISI KEDHAR SAANDEEP
4	40150005	DHAVALA ADHITYA
5	40150006	GEDDADA DAYASAGAR
6	40150007	GODAVARTHI GNANESWAR PANDU RANGA RAO
7	40150008	GOPINATH. G
8	40150009	GUNASEELAN. R
9	40150012	HARIPRAKASH. T
10	40150018	JOSEPH BRAITTON. S
11	40150021	KANDIMALLA RAMA KRISHNA SAI PRAVEEN
12	40150022	KORLEPARA ADITYA NAGA LAKSHMI VENKAT
13	40150023	MADESH
14	40150026	MOHAN. N
15	40150027	MUGILAN. M
16	40150030	NAVEEN KUMAR. P
17	40150031	NITIN. R
18	40150032	NITISH. L. V
19	40150033	PAMOTI SHANMUKH RAO
20	40150034	PRASANTH. A
21	40150035	RAGUL. G
22	40150044	SHIVASANKAR. R
23	40150045	SRIRAM. R
24	40150049	VISWAJITH B PILLAI
25	40150051	KUTTUMA RAVIKUMAR
26	40150708	Sudharshan Saravanan
27	40150711	MUTHU KUMAR V
28	40150712	Vincent Thomas J
29	40150717	PHANIKUMAR KONETI
30	40150003	CHIKKUDU VENKATA VIJAY KUMAR
31	40150010	HANAN GEOFFREY ABRAHAM
32	40150011	HARIHARAN. V
33	40150013	HARRISON KEVIN RAJ A
34	40150015	JESU GREATSON FERNANDO. X
35	40150017	JOHN SEBRAN. Y
36	40150019	JOYSON. J
37	40150020	K. SREE SAI SATVIK
38	40150024	MARADANA MOHITH KUMAR
39	40150025	MARIA DICKSON. J
40	40150028	MULINTY THARUN
41	40150029	NAGARAJU SUBBA RAJU
42	40150037	RESHLIN RITHAN RAJ. M



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Certificate Of Participation

THIS CERTIFICATE IS GIVEN TO

Mr. S. Adnan Sami

of Sathyabama Institute of Science and Technology has successfully participated in two days workshop on "**Skill Development Training on Solidworks**" organized by the Department of Mechanical Engineering, Sathyabama Institute of Science and Technology, Chennai held on 22nd Aug - 08th Sep 2022.


 CONVENER & HOD MECHANICAL




 DEAN MECHANICAL

2. ANSYS (Phase – I)

The ANSYS course specifically tailored for undergraduate Mechanical Engineering students. This comprehensive program is designed to provide you with a deep understanding of the ANSYS software suite, a powerful tool for engineering simulation and analysis. Through a combination of theoretical concepts and practical exercises, this course aims to equip you with the necessary skills to solve real-world engineering problems using numerical simulations.



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For more details Contact:

Dr. J. Jeyajeevahan
Assistant Professor
Department of Mechanical
Engineering
Mob: 91769 01505

Dr. R. B. Durai Raj
Assistant Professor
Department of Mechanical
Engineering
Mob: 7305533500

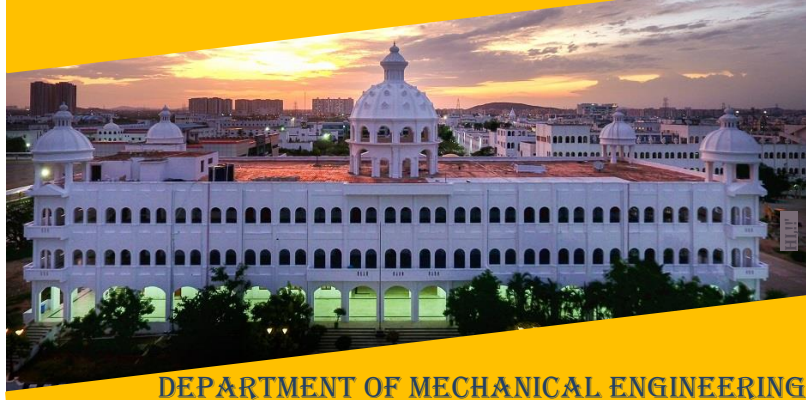
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MECHANICAL ENGINEERING

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SCHOOL OF MECHANICAL ENGINEERING



DEPARTMENT OF MECHANICAL ENGINEERING

Organizes Training Program

on

Hands on Training on ANSYS

Phase I: 10th October - 17th October 2022

COURSE OUTCOMES:

By the end of this course, you will have achieved the following learning objectives:

- Familiarize yourself with the ANSYS software interface, enabling you to navigate through the various modules and functionalities efficiently.
- Develop proficiency in finite element analysis (FEA) and computational fluid dynamics (CFD) simulations, empowering you to analyze structural and fluid flow behavior in complex engineering systems.
- Gain expertise in modeling and meshing techniques, allowing you to create accurate and reliable numerical models for simulation purposes.

- Understand how to apply boundary conditions and loads to simulations, ensuring accurate representation of real-world operating conditions.
- Learn to interpret and analyze simulation results, deriving valuable insights into the performance and behavior of engineering designs.
- Explore the mechanics of solids, fluids, heat transfer, and other physics phenomena, enabling you to simulate diverse engineering scenarios.
- Acquire knowledge of optimization techniques, allowing you to refine and improve engineering designs for optimal performance.
- Enhance your problem-solving skills by tackling engineering challenges using simulation-based approaches, promoting innovation and efficiency in your designs.
- Cultivate a strong foundation in engineering analysis, empowering you to make informed decisions based on simulation results and data

Module	Topics	Name of the Faculty	No of Sessions	Venue
1	• Introduction to ANSYS • Overview of ANSYS Software Suite • User Interface and Navigation • Working with Pre-processing Tools • Importing and Creating Geometry • Defining Material Properties	Dr. J. Jeyajeevahan	5 Hrs	CPDD Lab
2	• Structural Analysis • Introduction to Finite Element Analysis (FEA) • Modeling and Meshing for Structural Analysis • Applying Boundary Conditions and Loads • Running Structural Simulations • Analyzing and Interpreting Results	Dr. J. Jeyajeevahan	5 Hrs	CPDD Lab
3	• Fluid Dynamics Analysis (CFD) • Introduction to Computational Fluid Dynamics (CFD)	Dr. J. Jeyajeevahan	5 Hrs	CPDD Lab

	• Creating Fluid Domain and Meshing • Defining Boundary Conditions and Initial Conditions • Running CFD Simulations • Analyzing and Interpreting Fluid Flow Results			
4	• Thermal Analysis • Introduction to Thermal Analysis • Modeling and Meshing for Heat Transfer Analysis • Defining Heat Loads and Boundary Conditions • Running Thermal Simulations • Interpreting Temperature and Heat Flux Results	Dr. R. B. Durai Raj	5 Hrs	CPDD Lab
5	• Modal and Harmonic Analysis • Introduction to Modal and Harmonic Analysis • Modeling and Meshing for Modal Analysis • Running Modal and Harmonic Simulations • Analyzing and Interpreting Natural Frequencies and Mode Shapes	Dr. R. B. Durai Raj	5 Hrs	CPDD Lab
6	• Optimization and Design Exploration • Introduction to Design Optimization • Setting Up Optimization Studies • Defining Design Variables and Constraints • Running Optimization Simulations • Analyzing and Interpreting Optimization Results	Dr. R. B. Durai Raj	5 Hrs	CPDD Lab

Participants list:

Sl. No	Reg No	Name
1	40150718	RAHOON S
2	40150719	VINU MON W

3	40150720	GUGAN S
4	40150014	JASON VALENTINE DOSS
5	40150036	RAVADA PRAVEEN KUMAR
6	40150713	BONTHU KESHAVA KALYAN
7	40150050	PARAYADA MANISHREDDY
8	39150075	MADDI ANAND REDDY
9	39150117	SARATH KUMAR. G.S
10	39150082	MARIYA CLEMENT SAVIO. M
11	39150092	NEREDUMILLI DINESH
12	39150081	MARIA CLEMENT HARRISON. S
13	39150068	KISHOR KUMAR. J
14	39150085	MOHAMED ISMAIL. R
15	39150078	MADHANLAL. M
16	39150071	LAKSHMANA VIJAYAN. M
17	39150070	LAKKA BHUVANESWAR REDDY
18	39150096	PANNEERSELVAM. K
19	39150132	VETRIVELAN. S
20	39150094	NUKALA SRI CHARAN
21	39150100	PRAVEEN KUMAR. N
22	39150118	SATHISH KUMAR. B
23	39150062	KALAPARTHI LEELA DHANUSH NAIDU
24	39150128	VARADALA KARTHIK
25	39150064	KARTHIKEYAN. M
26	39150105	RAJ KUMAR. R
27	39150119	SHAFFRIN. L
28	39150120	SHAIK TANVEER MUSHARRAF
29	39150701	SANTHOSH. G
30	39150097	POTHAKAMURI VENKATAABHIRITHVIK
31	39150131	VENKADESHWARAN. R
32	39150104	RAHUL. R
33	39150107	RAJASEKAR THARUN
34	39150130	VELAGA BHARGAV DEEPAK
35	39150069	KUMARA REDDY RAO
36	39150111	ROHITH. I
37	39150084	MD SAMEER KHAN
38	39150115	SANCHIT KUMAR. T
39	39150134	VISHAL. S
40	39150086	MUDUNDI GUNA SAKETHA RAM VARMA
41	39150106	RAJAMAHENDRAVARAPU VARUN
42	39150137	YAMANA UMA KARTHIK
43	39150101	PREM. P. N
44	39150122	SINGIDI VISHNU VARDHAN REDDY
45	39150067	KIRAN KUMAR. B
46	39150102	PRIYARANJAN KUMAR MANDAL
47	39150116	SANTHOSH. A
48	40150038	RONAN STEVE HAWES
49	40150039	ROSARIO. R



CERTIFICATE OF COMPLETION

Awarded to Mr. Rahoon S

in Hands on Training on ANSYS

at Sathyabama Institute of Science and Technology Chennai

during 10.10.2022 – 17.10.2022

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 HOD MECHANICAL

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 DEAN MECHANICAL

24-10-2022

 DATE OF ISSUE

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 8th Floor, GEE GEE Crystal, Office No. 8C & 8D,
 91, Dr. Radhakrishnan Salai, Mylapore, Chennai-600 004, India.
www.iidesign.co.in

Corporate Office : 8th Floor GEE GEE Crystal, Office No. 8C & 8D, 91, Dr. Radhakrishnan Salai, Mylapore, Chennai-500 004, India: www.iidesign.co.in

3. EXPLORING DYNAMICS: THE MSC ADAMS (Phase – I)

The comprehensive course "Exploring Dynamics: The MSC Adams" tailored to undergraduate Mechanical Engineering students. This specially crafted program is designed to equip you with essential tools and techniques within the MSC Adams software. Throughout the course, you will delve into practical examples and hands-on exercises, allowing you to understand and apply dynamics principles to various mechanical systems. This course promises to enhance your proficiency in computer-aided engineering simulations and empower you with valuable skills in the field of mechanical dynamics.



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SCHOOL OF MECHANICAL ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING
Organizes Training Program
on
**Exploring Dynamics:
The MSC Adams**

OPEN TO ALL STUDENTS OF SCHOOL OF MECHANICAL ENGINEERING

CERTIFICATE WILL BE ISSUED

Phase I: 05th – 12th November 2022

<u>EVENT COORDINATORS:</u>	<u>CHIEF PATRONS</u>
Dr. R. Siva, Assistant Professor, Department of Mechanical Engineering, Mob: 9944666660	Dr. Mariazeena Johnson, Chancellor Dr. Marie Johnson, President Mr. J. Arul Selvan, Vice President Ms. Maria Bernadette Tamilarasi, Vice President Ms. Maria Catherine Jayapriya, Vice President
Dr. S. Ram Prakash, Assistant Professor, Department of Mechanical Engineering, Mob: 7667797479	<u>PATRONS</u> Dr. T. Sasipraba, Vice Chancellor Dr. S. Prakash, Dean, Mechanical

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COURSE OUTCOMES:

By the culmination of this course, you will achieve the following learning outcomes:

- **Simulation Mastery:** Gain expertise in using MSC Adams to simulate the dynamics of complex mechanical systems, unraveling their behavior under different conditions.
- **Modeling Techniques:** Develop the ability to model intricate mechanical components and assemblies in MSC Adams, enabling you to create accurate virtual prototypes for analysis.
- **Multibody Systems:** Comprehend the intricacies of multibody systems and their interactions, utilizing MSC Adams to predict how interconnected parts move and react.
- **Analytical Insights:** Learn to interpret simulation results to gain valuable insights into the performance, stresses, and forces within mechanical systems.
- **Industry Applications:** Acquire practical skills applicable in industries such as automotive, robotics, aerospace, and more, where understanding dynamics is pivotal.
- **Problem Solving:** Enhance your critical thinking and problem-solving skills by tackling real-world engineering challenges through dynamic simulations.
- **Collaboration and Communication:** Effectively collaborate with peers and professionals by conveying intricate mechanical concepts using simulation data.
- **Innovation and Design Improvement:** Utilize MSC Adams to explore design variations and optimize mechanical systems for improved efficiency and performance.
- **Simulation-Driven Decisions:** Develop the capability to make informed engineering decisions by analyzing simulations, contributing to efficient product development.
- **Skill Advancement:** Elevate your expertise in dynamic analysis, positioning yourself as a competent mechanical engineer well-versed in simulation-driven design.

Module	Topics	Name of the Faculty	No of Sessions	Venue
1	• "Exploring Dynamics: The MSC Adams" • Introduction to Dynamics Simulation • Navigating the MSC Adams Interface • Fundamentals of Motion Analysis • Setting Up Simulation Parameters • Creating and Managing Projects • Working with Constraints and Forces	Dr. R. Siva	5 Hrs	CPDD Lab
2	• Basic Dynamics Simulation • Building Simple Mechanical Systems	Dr. R. Siva	5 Hrs	CPDD Lab

	- Defining Rigid Bodies and Joints - Applying Motion Inputs - Running Basic Simulations - Analyzing Simulation Results - Adjusting Simulation Settings			
3	- Advanced Dynamics Modeling - Creating Complex Assemblies - Implementing Flexible Bodies - Modeling Contact and Impact - Integrating External Loads - Simulating Kinematic and Dynamic Systems	Dr. R. Siva	5 Hrs	CPDD Lab
4	- Multi-Body Dynamics - Understanding Multi-Body Systems - Defining Connectors and Constraints - Analyzing Motion Interactions - Investigating Multi-Body Simulation Results - Fine-Tuning Multi-Body Models	Dr. S. Ram Prakash	5 Hrs	CPDD Lab
5	- Dynamic Analysis Optimization - Introduction to Optimization Techniques - Defining Design Variables and Objectives - Setting Constraints and Parameters - Running Optimization Simulations - Interpreting Optimization Results	Dr. S. Ram Prakash	5 Hrs	CPDD Lab
6	- Industry Applications and Case Studies - Applying MSC Adams in Automotive Engineering - Utilizing MSC Adams in Robotics	Dr. S. Ram Prakash	5 Hrs	CPDD Lab

	• Dynamic Analysis in Aerospace Applications • Real-World Case Studies and Problem-Solving • Innovations in Mechanical Systems through MSC Adams			
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Participants list:

Sl. No	Reg No	Name
1	39150079	MALLIREDDY GARI PRAVEEN REDDY
2	39150136	YAMANA MANIKANTA AJAY
3	39150065	KAUSHIK SUBBIAH GANESAN
4	39150135	VISHESH DHILLON
5	39150108	RAJESH CHOUDHARY. D
6	39150103	RABIN. S
7	39150088	MURALIDHARAN. S
8	39150121	SHRIVISHNUPATHY. G
9	39150098	PRAJUVAL REDDY POLU
10	39150083	MATTA GIRIJA RAM PRASANTH
11	39150077	MADHAN KUMAR. A
12	39150087	MUNNALURI BADREE NATH
13	39150095	PALIKILA GOPINADH REDDY
14	39150093	NIKET KUMAR SINGH
15	39150091	NEMALIKANTI SATWIK
16	39150114	SAI RAM MOVVA
17	39150073	LOGESH. P. G
18	39150112	SABBHARISHI. V
19	39150080	MANEESH. N
20	39150089	NAIDANA JAYKETH
21	39150703	DIVYA PRAKASH. V
22	39150702	PETA MOHANA NAGA SUDHIR
23	39150125	SUNIL. R
24	39150030	DEVA DHARSHAN. G
25	39150015	BALAJE. S. M
26	39150013	BADAM NANDA KISHORE REDDY
27	39150029	DANDU. V. S. AJAY CHANDRA VARMA
28	39150042	GADDEY VARSHINI
29	39150051	JAYAKUMARAN. R
30	39150037	DODDI CHARLES GNANA PRAKASH
31	39150055	JEMILSON. J
32	39150009	AROKEYA SAMI. Y
33	39150017	BALAJI. C. P
34	39150027	CLARANCERAJ. D
35	39150026	CHITRA NANDAVARDHAN
36	39150034	DILIPKUMAR. S

37	39150049	JALADANI VEERA TEJA
38	39150028	DADI AVANTH KUMAR
39	39150020	BREDISON. J
40	39150019	BHARADHAN. C
41	39150045	HARIHARAN. R
42	39150048	ISA SHIVA PRASAD
43	39150032	DHARUN. K
44	39150052	JAYASEELAN. E



4. WELDING TECHNOLOGY (Phase – I)

Immerse yourself in our intensive 'Hands-On Training on Welding Technology' program, meticulously crafted for undergraduate Mechanical Engineering students. This specialized course is meticulously designed to provide you with a comprehensive understanding of the fundamental techniques and practices in welding technology. Through practical workshops and real-world applications, you will gain valuable insights into the intricacies of various welding processes and their applications. This training promises to elevate your expertise in the field of welding technology and equip you with essential skills for a successful career in mechanical engineering.



The poster is for a 'Hands on Training on Welding Technology' workshop. It features the Sathyabama University logo at the top center, flanked by NAAC and NBA accreditation logos. The text 'SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY (DEEMED TO BE UNIVERSITY)' is prominently displayed. Below this, it states 'SCHOOL OF MECHANICAL ENGINEERING' and 'DEPARTMENT OF MECHANICAL ENGINEERING'. The main title 'Hands on Training on Welding Technology' is in a large, bold font. A 'Workshop Lab' icon is shown. The poster also mentions 'FREE REGISTRATION' and 'E-CERTIFICATE WILL BE ISSUED'. Contact information for Dr. V. Sivaprakash and Dr. Ram Prakash is provided. The workshop is open to all students of the School of Mechanical Engineering. The dates for Phase I are 12nd December to 16th December 2022. The website www.sathyabamauniversity.ac.in is listed at the bottom.

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NATIONAL BOARD OF ACCREDITATION

FREE REGISTRATION

E-CERTIFICATE WILL BE ISSUED

SCHOOL OF MECHANICAL ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING

Hands on Training
on
Welding Technology

Workshop Lab

OPEN TO ALL STUDENTS OF SCHOOL OF MECHANICAL ENGINEERING

Phase I date :: 12nd December - 16th December 2022

www.sathyabamauniversity.ac.in

For more details and Registrations Contact:

Dr. V. Sivaprakash
Assistant Professor
Department of Mechanical Engineering
Mob: 9597459243

Dr. Ram Prakash
Assistant Professor
Department of Mechanical Engineering
Mob: 7667797479

COURSE OUTCOMES:

By the culmination of this course, you will achieve the following learning outcomes:

- **Proficiency in Welding Techniques:** Attain proficiency in various welding methods and practices, understanding their applications and suitability for different materials and scenarios.
- **Comprehensive Understanding:** Develop a comprehensive understanding of welding principles, including heat management, joint configurations, and material compatibility.
- **Practical Application:** Apply theoretical knowledge to practical welding scenarios, acquiring the ability to perform welding tasks with precision and efficiency.
- **Quality Assurance:** Learn to ensure the quality of welds through inspection and testing techniques, adhering to industry standards and safety protocols.
- **Problem Resolution:** Enhance problem-solving skills by addressing welding-related challenges and troubleshooting common issues in real-world welding applications.
- **Industry Relevance:** Gain insights into the industrial relevance of welding technology across various sectors, including manufacturing, construction, and infrastructure development.

- **Safety Protocols:** Acquire a strong awareness of safety protocols and best practices in welding, promoting a secure and controlled working environment.
- **Collaboration and Communication:** Cultivate effective communication and teamwork skills, essential for collaborative welding projects and seamless coordination with peers and supervisors.
- **Innovative Techniques:** Explore innovative welding methods and technologies, fostering a mindset of continual improvement and adaptation to evolving industry trends.
- **Skill Advancement:** Advance your skill set in welding technology, positioning yourself as a competent professional equipped with practical expertise in the field.

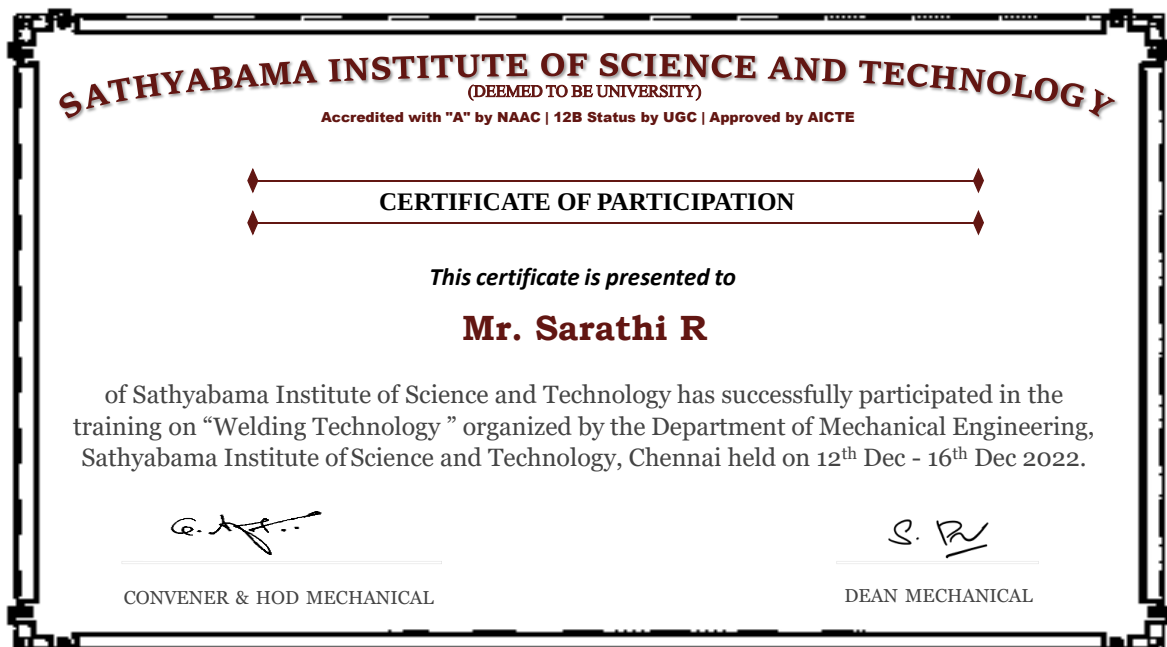
Module	Topics	Name of the Faculty	No of Sessions	Venue
1	• Introduction to Welding Fundamentals • Basic Principles and Terminologies in Welding • Types of Welding Joints and Their Applications • Introduction to Welding Equipment and Tools	Dr. V. Sivaprakash	5 Hrs	Workshop Lab
2	• Welding Techniques and Applications • Arc Welding, MIG Welding, and TIG Welding Techniques • Welding in Various Industrial and Construction Settings • Hands-On Experience in Different Welding Methods	Dr. V. Sivaprakash	5 Hrs	Workshop Lab
3	• Welding Materials and Metallurgy • Understanding Material Properties in Welding • Metallurgical Changes in Welded Joints • Material Selection for Different Welding Processes	Dr. V. Sivaprakash	5 Hrs	Workshop Lab
4	• Quality Assurance and Safety Procedures	Dr. S. Ram Prakash	5 Hrs	Workshop Lab

	• Weld Inspection and Quality Control Measures • Safety Protocols and Personal Protective Equipment (PPE) • Compliance with Industry Standards and Regulations			
5	• Advanced Welding Practices and Innovations • Advanced Welding Technologies and Automation • Recent Trends and Innovations in Welding Industry • Robotics and Automation in Modern Welding Processes	Dr. S. Ram Prakash	5 Hrs	Workshop Lab
6	• Project-based Learning and Industrial Applications • Real-world Welding Projects and Case Studies • Collaboration and Teamwork in Welding Projects • Problem-solving and Troubleshooting in Welding Applications	Dr. S. Ram Prakash	5 Hrs	Workshop Lab

Participants list:

Sl. No	Reg No	Name
1	40150043	SARATHI. R
2	40150046	TAMALAPAKULA VIDYASAGAR
3	40150047	VELISALA KARTHIK
4	40150048	VISHNUPRASAD. G. E
5	40150701	NAVEEN RAJ .P
6	40150702	Joel Berglin J
7	40150703	Deepak H
8	40150704	PRAVEEN KUMAR G S
9	40150705	Akash Pandian C E
10	40150706	Johannes Richy J
11	40150707	Deepak Kumar B

12	40150709	SUDHARSANAN V S
13	40150710	KAMESH.V
14	40150714	RAGHUL .S
15	40150716	EZHILAN U
16	39150110	RATTAN. S. S
17	39150129	VEGI DHANANJAI SAI SANKAR
18	39150109	RAMESH ARWIN. S
19	39150113	SAHAS. S
20	39150066	KEVIN JOHN MOOLAYIL
21	39150126	SUSHIL. G
22	39150133	VINITH KANNAN. L
23	39150127	VANAPALLI SAI KRISHNA
24	39150090	NARAHARI SAI SRI HARI
25	39150124	SUNIL ABRAHAM. J
26	39150123	SOLOMON JOSE. S
27	39150063	KAMARSU SAI SRI NIMAY
28	39150074	LOKESH. T
29	39150099	PRASANNA VENKATESH. A
30	39150076	MADEPALLI AVINASH
31	39150053	JEFFI SHARINE. C
32	39150007	ARAVINDH. G
33	39150056	JOE ROZZARIO DOSS. S
34	39150038	DRONAMRAJU. V. S. MOHAN SUBBA RAO
35	39150047	HARSON. T
36	39150006	ANANTH. M
37	39150005	AMBATI CHIRANJEEVI
38	39150003	AHINO SHELLY. P
39	39150011	ASHWIN. S
40	39150021	CHAGANTI SAI PAVAN KUMAR
41	39150033	DHATSIONA. R
42	39150039	EDUMUDI GOWTHAM
43	39150014	BADAM SAKETH SAI BHAGAVAN
44	39150023	CHEKURI SATYA AVINASH VARMA
45	39150046	HARIS. P
46	41150068	SREEKARAM PRANEETH KUMAR
47	41150064	ROUDHICK S
48	39150002	ABIJEETH. X
49	39150024	CHIDAMBARA KANNAN. A
50	39150010	ARSHEK FARVAIZ. H
51	40150040	ROSHAN JEROLD. J



5. SOLIDWORKS (Phase -II)

The SolidWorks course tailored for undergraduate Mechanical Engineering students. This comprehensive program is designed to equip you with essential tools and commands to effectively use SolidWorks software. Throughout the course, you will be exposed to various practical examples and hands-on exercises that will enable you to proficiently model and assemble mechanical components and assemblies. By delving into computer-aided design applications, this course aims to enhance your skills, elevate your expertise, and expand your knowledge in this field.

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For more details and Registrations Contact:

Dr. J. Jeyajeevahan
Assistant Professor
Department of Mechanical Engineering
Mob: 91769 01505

Dr. Ram Prakash
Assistant Professor
Department of Mechanical Engineering
Mob: 7667797479

SCHOOL OF MECHANICAL ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING

Organizes Training Program
on
**SKILL DEVELOPMENT TRAINING -
SOLIDWORKS (Phase - II)**

**OPEN TO ALL STUDENTS OF SCHOOL OF MECHANICAL
ENGINEERING**

Save the date :: 23rd January-- 11th February 2023

www.sathyabamauniversity.ac.in

COURSE OUTCOMES:

By the conclusion of this course, you will have achieved the following learning objectives:

- Master the construction of 2D sketches using SolidWorks, effectively translating your ideas into detailed digital representations.
- Skillfully prepare printable drawings and documentation, ensuring precise and accurate engineering designs for various projects.
- Acquire proficiency in creating 3D models, enabling you to conceptualize, visualize, and simulate complex mechanical structures and mechanisms.
- Develop the ability to assemble components into functional systems, facilitating the understanding of the interconnections and interactions within the mechanical assemblies.
- Gain insight into Finite Element Analysis (FEA) simulations, empowering you to evaluate the structural integrity and performance of your designs under various conditions.

- Enhance your problem-solving skills by tackling real-world design challenges, fostering creativity and innovation in your engineering solutions.
- Understand the principles of parametric modeling, enabling you to make design modifications with ease and efficiency.
- Cultivate a strong foundation in product design, enabling you to contribute to the development of cutting-edge innovations in the mechanical engineering industry.

Module	Topics	Name of the Faculty	No of Sessions	Venue
1	• SolidWorks • Introduction to SolidWorks • User Interface and Navigation • Working with Sketches • Cartesian Coordinate System • Creating and Opening Part Files • View Manipulation in SolidWorks	Dr. Ram Prakash	3 Hrs	CPDD Lab
2	• Basic Sketching and Editing • Creating Sketches • Modifying Sketch Geometry • Using Constraints and Dimensions • Geometric Relations • Extruding and Cutting Features • Revolve and Sweep Features • Fillets and Chamfers	Dr. Ram Prakash	2 Hrs	CPDD Lab
3	• Advanced Sketching • Sketch Planes and References • Advanced Constraints • Splines and Curves • Sketch Patterns • Equations and Smart Dimensions	Dr. Ram Prakash	2 Hrs	CPDD Lab
4	• Modeling with Solid Features	Dr. Ram Prakash	2 Hrs	CPDD Lab

	• Creating Base and Boss Features • Creating Cut and Hole Features • Shell and Rib Features • Draft and Fillet Analysis • Patterns and Mirroring Features			
5	• Assembly Basics • Introduction to Assemblies • Component Mates and Constraints • Top-Down and Bottom-Up Assembly Design • Subassemblies and Flexible Assemblies	Dr. Ram Prakash	2 Hrs	CPDD Lab
6	• Advanced Assembly Techniques • Smart Components • Assembly Features • Exploded Views and Animations • Interference Detection • Configurations and Design Tables	Dr. Ram Prakash	2 Hrs	CPDD Lab
7	• Introduction to Drawings • Creating New Drawing Sheets • Adding Views to Drawings • Dimensioning and Annotations • Bill of Materials (BOM) • Editing and Managing Drawings	Dr. Ram Prakash	2 Hrs	CPDD Lab
8	• Advanced Drawing Techniques • Section Views and Broken Views • Detail Views and Auxiliar Views • Customizing Drawing Templates • Tolerances and Geometric Dimensioning and Tolerancing (GD&T)	Dr. J. Jeyajeevahan	2 Hrs	CPDD Lab

9	• Working with Sheet Metal • Sheet Metal Fundamentals • Creating Sheet Metal Parts • Sheet Metal Bends and Unfolds • Flat Patterns and Bend Tables	Dr. J. Jeyajeevahan	2 Hrs	CPDD Lab
10	• Surfacing • Introduction to Surfacing • Creating Loft and Boundary Features • Sweep and Fill Features • Surface Trim and Knit	Dr. J. Jeyajeevahan	2 Hrs	CPDD Lab
11	• Weldments • Creating Structural Frames • Applying Weldments and Members • Working with Cut List and Weldment Drawings	Dr. J. Jeyajeevahan	2 Hrs	CPDD Lab
12	• Simulation and Analysis • Introduction to Simulation • Applying Loads and Constraints • Running and Interpreting Simulations	Dr. J. Jeyajeevahan	2 Hrs	CPDD Lab
13	• Introduction to Mold Design • Creating Mold Bases • Parting Lines and Surfaces • Draft Analysis and Mold Tools	Dr. J. Jeyajeevahan	2 Hrs	CPDD Lab
14	• Rendering and Animation • Applying Appearances and Textures • Creating Photo-Realistic Renderings • Animating Assemblies and Components • Presenting Designs and Explaining Concepts	Dr. J. Jeyajeevahan	3 Hrs	CPDD Lab

Participants list:

Sl. No	Reg No	Name
1	39150001	AANSTON ANTONY
2	39150008	ARISH. A
3	39150016	BALAJI. B
4	39150022	CHAVALA DINESH
5	39150050	JANARTHANAN. S
6	39150012	AYUSH KUMAR
7	39150043	GEORGE. A
8	39150040	EDWIN KISHORE. J
9	39150059	KABILAN. K
10	39150060	KAILASH. S. V
11	39150058	JOTHEESWARAN. S
12	39150057	JOESSAM MARIO. J
13	39150061	KAIPA SAI VISHNU CHARAN
14	39150004	ALLAM PUJITH SAI ESWAR
15	39150036	DINESH. S
16	39150054	JEFFIN SAM DAVID. J
17	39150031	DHANIKONDA. V. SHANMUKA SAI ASHOK VARDHAN
18	39150018	BARATH. C
19	39150044	GOVINDALAPUDI SRI SOMANAATH
20	39150709	PRATTIPATI CHANDU SITARAM
21	39150710	RAHUL SRIVATSAN. A
22	39150711	KARPAGAVASAN. A
23	39150707	SUJAN. S
24	39150708	SIRUMALLA GNANA PRAKASH
25	39150704	BATHULA MANOJ
26	39150712	VARRUN NESHANTH. V.P
27	39150705	KASI RAMAN. R
28	39150706	GOBISANKAR. V
29	41150057	PEDADA ABHIRAM
30	41150074	SUVENDHU CHANDRA GOPE
31	41150058	PRAJEETRAJ P S
32	41150070	SUBASH S
33	41150059	PRAVEEN RAJ M
34	41150060	PRITHICK DHAS P
35	41150080	YOGESHWAR T
36	41150073	SUSHANTH N
37	41150072	SURIYA PRAKASH M
38	41150051	MICHEAL EFRAYIM ROOSEN R
39	41150055	NIRANJAN S
40	41150076	VADLAMUDI VENKATESH
41	41150079	YOGESHWAR S
42	41150062	KURMAPU RAKESH
43	41150056	PATHAN SALEEM KHAN
44	41150071	SURI VENKATA SAI NEETESH REDDY
45	41150053	NAMA MANIKANTA

46	41150067	SIDDABATHUNI RAVI KIRAN
47	41150075	UDAYGIRI SAI AVINASH
48	40150041	S. K. SAKIL MOHAMMAD
49	40150042	SAM JEFIRIN. C



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Certificate Of Participation

THIS CERTIFICATE IS GIVEN TO

Mr. Aanston Antony

of Sathyabama Institute of Science and Technology has successfully participated in the training on "Skill Development Training on Solidworks" organized by the Department of Mechanical Engineering, Sathyabama Institute of Science and Technology, Chennai held on 23rd Jan - 11th Feb 2023.

CONVENER & HOD MECHANICAL



DEAN MECHANICAL

6. ANSYS (Phase – II)

The ANSYS course specifically tailored for undergraduate Mechanical Engineering students. This comprehensive program is designed to provide you with a deep understanding of the ANSYS software suite, a powerful tool for engineering simulation and analysis. Through a combination of theoretical concepts and practical exercises, this course aims to equip you with the necessary skills to solve real-world engineering problems using numerical simulations.



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For more details Contact:

Dr. J. Jeyajeevahan
Assistant Professor
Department of Mechanical
Engineering
Mob: 91769 01505

Dr. R. B. Durai Raj
Assistant Professor
Department of Mechanical
Engineering
Mob: 7305533500

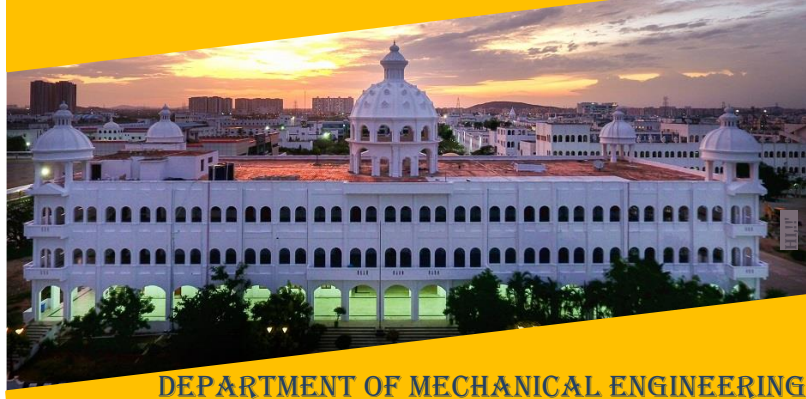
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SCHOOL OF MECHANICAL ENGINEERING



DEPARTMENT OF MECHANICAL ENGINEERING

Organizes Training Program

on

Hands on Training on ANSYS

Phase II: 20th March- 27th March 2023

COURSE OUTCOMES:

By the end of this course, you will have achieved the following learning objectives:

- Familiarize yourself with the ANSYS software interface, enabling you to navigate through the various modules and functionalities efficiently.
- Develop proficiency in finite element analysis (FEA) and computational fluid dynamics (CFD) simulations, empowering you to analyze structural and fluid flow behavior in complex engineering systems.
- Gain expertise in modeling and meshing techniques, allowing you to create accurate and reliable numerical models for simulation purposes.

- Understand how to apply boundary conditions and loads to simulations, ensuring accurate representation of real-world operating conditions.
- Learn to interpret and analyze simulation results, deriving valuable insights into the performance and behavior of engineering designs.
- Explore the mechanics of solids, fluids, heat transfer, and other physics phenomena, enabling you to simulate diverse engineering scenarios.
- Acquire knowledge of optimization techniques, allowing you to refine and improve engineering designs for optimal performance.
- Enhance your problem-solving skills by tackling engineering challenges using simulation-based approaches, promoting innovation and efficiency in your designs.
- Cultivate a strong foundation in engineering analysis, empowering you to make informed decisions based on simulation results and data.

Module	Topics	Name of the Faculty	No of Sessions	Venue
1	• Introduction to ANSYS • Overview of ANSYS Software Suite • User Interface and Navigation • Working with Pre-processing Tools • Importing and Creating Geometry • Defining Material Properties	Dr. J. Jeyajeevahan	5 Hrs	CPDD Lab
2	• Structural Analysis • Introduction to Finite Element Analysis (FEA) • Modeling and Meshing for Structural Analysis • Applying Boundary Conditions and Loads • Running Structural Simulations • Analyzing and Interpreting Results	Dr. J. Jeyajeevahan	5 Hrs	CPDD Lab
3	• Fluid Dynamics Analysis (CFD) • Introduction to Computational Fluid Dynamics (CFD) • Creating Fluid Domain and Meshing	Dr. J. Jeyajeevahan	5 Hrs	CPDD Lab

	- Defining Boundary Conditions and Initial Conditions - Running CFD Simulations - Analyzing and Interpreting Fluid Flow Results			
4	- Thermal Analysis - Introduction to Thermal Analysis - Modeling and Meshing for Heat Transfer Analysis - Defining Heat Loads and Boundary Conditions - Running Thermal Simulations - Interpreting Temperature and Heat Flux Results	Dr. R. B. Durai Raj	5 Hrs	CPDD Lab
5	- Modal and Harmonic Analysis - Introduction to Modal and Harmonic Analysis - Modeling and Meshing for Modal Analysis - Running Modal and Harmonic Simulations - Analyzing and Interpreting Natural Frequencies and Mode Shapes	Dr. R. B. Durai Raj	5 Hrs	CPDD Lab
6	- Optimization and Design Exploration - Introduction to Design Optimization - Setting Up Optimization Studies - Defining Design Variables and Constraints - Running Optimization Simulations - Analyzing and Interpreting Optimization Results	Dr. R. B. Durai Raj	5 Hrs	CPDD Lab

Participants list:

Sl. No	Reg No	Name
1	41150712	PRAVEEN SAMUEL D
2	41150708	KEERTHIVASAN M
3	41150714	ROHITH KUMAR D
4	41150717	VIGNESH R
5	41150716	VIBIN S
6	41150715	THARUN PRAKASH J
7	41150704	BALA KUMARAN B
8	41150705	DINESH S
9	41150701	AVAARU SUSHEEL KUMAR
10	41150713	RADHAKRISHNAN R
11	41150709	KOVVURI SIVA GANESH SAMPATH REDDY
12	41150702	ARVIND B
13	41150711	PRAGAADEESH S
14	41150719	YOGI VENKAT M
15	41150720	HARISH V
16	41150703	BAGWAN SAAD HYDER
17	42150035	RAGHUL V
18	42150021	JAISON KUMAR K
19	42150018	HEMANTH R
20	42150034	PON AKILAN S
21	42150047	SARAVANAN V
22	42150057	THARUN KESHAV R
23	42150043	SAMUEL MILTON RAJ R
24	42150062	VIJAYARAJAN J K
25	42150014	GILBERT DANIEL D
26	42150023	JOHN DAVID MATHEW S
27	42150032	PAROSHAN A
28	42150031	MOHMAD IRSHATH MEERAN S
29	42150041	SABEEN S
30	42150055	STEYNS H
31	42150033	PAVITHRAN R
32	42150026	MADHAN S A
33	42150025	KRISHNA S
34	42150050	SHEWAK A
35	42150053	SRI THIRUMURUGAN D
36	42150039	RINO B
37	42150058	UDHAYA RAMANAN M
38	42150002	AMRITH R.K
39	42150030	MOHAMED RIYAZ P
40	42150015	GOKULA KRISHNAN K
41	42150059	VEDHAGIRI M
42	42150010	DHARUNRAJ K







CERTIFICATE OF COMPLETION

Awarded to Mr. D. Praveen Samuel

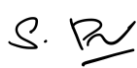
in Hands on Training on ANSYS

at Sathyabama Institute of Science and Technology Chennai

during 20.03.2023 – 27.03.2023



 HOD MECHANICAL



 DEAN MECHANICAL

05-04-2023

 DATE OF ISSUE








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Corporate Office: 8th Floor GEE GEE Crystal, Office No. 8C & 8D, 91, Dr. Radhakrishnan Salai, Mylapore, Chennai-500 004, India: www.iidesign.co.in

7. EXPLORING DYNAMICS: THE MSC ADAMS (Phase -II)

The comprehensive course "Exploring Dynamics: The MSC Adams" tailored to undergraduate Mechanical Engineering students. This specially crafted program is designed to equip you with essential tools and techniques within the MSC Adams software. Throughout the course, you will delve into practical examples and hands-on exercises, allowing you to understand and apply dynamics principles to various mechanical systems. This course promises to enhance your proficiency in computer-aided engineering simulations and empower you with valuable skills in the field of mechanical dynamics.



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DEPARTMENT OF MECHANICAL ENGINEERING
Organizes Training Program
on
**Exploring Dynamics:
The MSC Adams**
OPEN TO ALL STUDENTS OF SCHOOL OF MECHANICAL ENGINEERING
CERTIFICATE WILL BE ISSUED
Phase II: 07th April – 14th April 2023

<u>EVENT COORDINATORS:</u>	<u>CHIEF PATRONS</u>
Dr. R. Siva, Assistant Professor, Department of Mechanical Engineering, Mob: 9944666660	Dr. Mariazeena Johnson, Chancellor Dr. Marie Johnson, President Mr. J. Arul Selvan, Vice President Ms. Maria Bernadette Tamilarasi, Vice President Ms. Maria Catherine Jayapriya, Vice President
Dr. S. Ram Prakash, Assistant Professor, Department of Mechanical Engineering, Mob: 7667797479	<u>PATRONS</u> Dr. T. Sasipraba, Vice Chancellor Dr. S. Prakash, Dean, Mechanical

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COURSE OUTCOMES:

By the culmination of this course, you will achieve the following learning outcomes:

- **Simulation Mastery:** Gain expertise in using MSC Adams to simulate the dynamics of complex mechanical systems, unraveling their behavior under different conditions.

- **Modeling Techniques:** Develop the ability to model intricate mechanical components and assemblies in MSC Adams, enabling you to create accurate virtual prototypes for analysis.
- **Multibody Systems:** Comprehend the intricacies of multibody systems and their interactions, utilizing MSC Adams to predict how interconnected parts move and react.
- **Analytical Insights:** Learn to interpret simulation results to gain valuable insights into the performance, stresses, and forces within mechanical systems.
- **Industry Applications:** Acquire practical skills applicable in industries such as automotive, robotics, aerospace, and more, where understanding dynamics is pivotal.
- **Problem Solving:** Enhance your critical thinking and problem-solving skills by tackling real-world engineering challenges through dynamic simulations.
- **Collaboration and Communication:** Effectively collaborate with peers and professionals by conveying intricate mechanical concepts using simulation data.
- **Innovation and Design Improvement:** Utilize MSC Adams to explore design variations and optimize mechanical systems for improved efficiency and performance.
- **Simulation-Driven Decisions:** Develop the capability to make informed engineering decisions by analyzing simulations, contributing to efficient product development.
- **Skill Advancement:** Elevate your expertise in dynamic analysis, positioning yourself as a competent mechanical engineer well-versed in simulation-driven design.

Module	Topics	Name of the Faculty	No of Sessions	Venue
1	• "Exploring Dynamics: The MSC Adams" • Introduction to Dynamics Simulation • Navigating the MSC Adams Interface • Fundamentals of Motion Analysis • Setting Up Simulation Parameters • Creating and Managing Projects • Working with Constraints and Forces	Dr. R. Siva	5 Hrs	CPDD Lab
2	• Basic Dynamics Simulation • Building Simple Mechanical Systems • Defining Rigid Bodies and Joints • Applying Motion Inputs • Running Basic Simulations	Dr. R. Siva	5 Hrs	CPDD Lab

	- Analyzing Simulation Results - Adjusting Simulation Settings			
3	- Advanced Dynamics Modeling - Creating Complex Assemblies - Implementing Flexible Bodies - Modeling Contact and Impact - Integrating External Loads - Simulating Kinematic and Dynamic Systems	Dr. R. Siva	5 Hrs	CPDD Lab
4	- Multi-Body Dynamics - Understanding Multi-Body Systems - Defining Connectors and Constraints - Analyzing Motion Interactions - Investigating Multi-Body Simulation Results - Fine-Tuning Multi-Body Models	Dr. S. Ram Prakash	5 Hrs	CPDD Lab
5	- Dynamic Analysis Optimization - Introduction to Optimization Techniques - Defining Design Variables and Objectives - Setting Constraints and Parameters - Running Optimization Simulations - Interpreting Optimization Results	Dr. S. Ram Prakash	5 Hrs	CPDD Lab
6	- Industry Applications and Case Studies - Applying MSC Adams in Automotive Engineering - Utilizing MSC Adams in Robotics - Dynamic Analysis in Aerospace Applications - Real-World Case Studies and Problem-Solving	Dr. S. Ram Prakash	5 Hrs	CPDD Lab

	Innovations in Mechanical Systems through MSC Adams			
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Participants list:

Sl. No	Reg No	Name
1	42150046	SANJAY M
2	42150067	KIRAN KUMAR M K
3	42150071	MUHAMMAD AIMAN S
4	42150066	JABANESH D
5	42150064	AJISH SAHAI T
6	42150073	RANJITH KUMAR K
7	42150004	AROCKIA VIJOSE R
8	42150042	SAHAYA ROBERT JOYEAL R
9	42150060	VEERAMANI KANDAN V
10	42150036	RAGHUNATH M
11	42150024	KAMESH D
12	42150049	SELVAKUMAR IMMANUEL J
13	42150714	KISHOREKUMAR I
14	42150083	CATHARINE J S
15	42150081	EZHIL POKESH
16	42150713	KARTHICK R
17	42150724	YOGENDRAN B
18	42150733	SOLLETI VENKATA CHARAN KUMAR
19	42150720	G.S. VIGNESH
20	42150738	BADRISH
21	42150076	VISHWA K
22	42150701	AAKASH K
23	42150711	J JENSON
24	42150710	JADDU SAI PAVAN KUMAR
25	42150718	SANJAI. S
26	42150731	KANNAN R
27	42150712	JOSH MARK. J
28	42150705	ARUN K
29	42150704	ALAN SAMUEL JOHNSON A
30	42150727	PENDLIMARRI ASHOK KUMAR
31	42150730	VENU ARAVINDH. C
32	42150716	MANDAPTI RISHI KESH RAJU
33	42150734	RAGURAM A
34	42150037	RAMAYE L
35	42150709	DINESH KUMAR S
36	42150077	RAJESH D
37	42150736	GOKUL S
38	42150074	SRI GYNANESH K
39	42150739	SIDDARDHARAJ P
40	42150721	VIGNESHWARAN S
41	42150729	SHAIK FAYAZ
42	42150069	PRASAD K L V

43	42150061	VENDAMANI G
44	42150038	REVATHI K
45	42150079	HEMANTH KUMAR D
46	42150706	BALAJI V
47	42150717	REHANUDEEN KHAN
48	42150063	YUVAN RAJ S
49	42150044	SAMUEL .R
50	42150052	SRI RAM S
51	42150006	ARUL NIJO ROSHAN J
52	42150005	ARPITH C



8. WELDING TECHNOLOGY (Phase – II)

Immerse yourself in our intensive 'Hands-On Training on Welding Technology' program, meticulously crafted for undergraduate Mechanical Engineering students. This specialized course is meticulously designed to provide you with a comprehensive understanding of the fundamental techniques and practices in welding technology. Through practical workshops and real-world applications, you will gain valuable insights into the intricacies of various welding processes and their applications. This training promises to elevate your expertise in the field of welding technology and equip you with essential skills for a successful career in mechanical engineering.



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FREE REGISTRATION

E-CERTIFICATE WILL BE ISSUED

SCHOOL OF MECHANICAL ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING

Hands on Training
on
Welding Technology

Workshop Lab

OPEN TO ALL STUDENTS OF SCHOOL OF MECHANICAL ENGINEERING

Phase II date :: 24th April-- 28th April 2023

www.sathyabamauniversity.ac.in

For more details and Registrations Contact:

Dr. V. Sivaprakash
Assistant Professor
Department of Mechanical Engineering
Mob: 9597459243

Dr. Ram Prakash
Assistant Professor
Department of Mechanical Engineering
Mob: 7667797479

COURSE OUTCOMES:

By the culmination of this course, you will achieve the following learning outcomes:

- **Proficiency in Welding Techniques:** Attain proficiency in various welding methods and practices, understanding their applications and suitability for different materials and scenarios.
- **Comprehensive Understanding:** Develop a comprehensive understanding of welding principles, including heat management, joint configurations, and material compatibility.
- **Practical Application:** Apply theoretical knowledge to practical welding scenarios, acquiring the ability to perform welding tasks with precision and efficiency.
- **Quality Assurance:** Learn to ensure the quality of welds through inspection and testing techniques, adhering to industry standards and safety protocols.
- **Problem Resolution:** Enhance problem-solving skills by addressing welding-related challenges and troubleshooting common issues in real-world welding applications.
- **Industry Relevance:** Gain insights into the industrial relevance of welding technology across various sectors, including manufacturing, construction, and infrastructure development.

- **Safety Protocols:** Acquire a strong awareness of safety protocols and best practices in welding, promoting a secure and controlled working environment.
- **Collaboration and Communication:** Cultivate effective communication and teamwork skills, essential for collaborative welding projects and seamless coordination with peers and supervisors.
- **Innovative Techniques:** Explore innovative welding methods and technologies, fostering a mindset of continual improvement and adaptation to evolving industry trends.
- **Skill Advancement:** Advance your skill set in welding technology, positioning yourself as a competent professional equipped with practical expertise in the field.

Module	Topics	Name of the Faculty	No of Sessions	Venue
1	• Introduction to Welding Fundamentals • Basic Principles and Terminologies in Welding • Types of Welding Joints and Their Applications • Introduction to Welding Equipment and Tools	Dr. V. Sivaprakash	5 Hrs	Workshop Lab
2	• Welding Techniques and Applications • Arc Welding, MIG Welding, and TIG Welding Techniques • Welding in Various Industrial and Construction Settings • Hands-On Experience in Different Welding Methods	Dr. V. Sivaprakash	5 Hrs	Workshop Lab
3	• Welding Materials and Metallurgy • Understanding Material Properties in Welding • Metallurgical Changes in Welded Joints • Material Selection for Different Welding Processes	Dr. V. Sivaprakash	5 Hrs	Workshop Lab
4	• Quality Assurance and Safety Procedures	Dr. S. Ram Prakash	5 Hrs	Workshop Lab

	• Weld Inspection and Quality Control Measures • Safety Protocols and Personal Protective Equipment (PPE) • Compliance with Industry Standards and Regulations			
5	• Advanced Welding Practices and Innovations • Advanced Welding Technologies and Automation • Recent Trends and Innovations in Welding Industry • Robotics and Automation in Modern Welding Processes	Dr. S. Ram Prakash	5 Hrs	Workshop Lab
6	• Project-based Learning and Industrial Applications • Real-world Welding Projects and Case Studies • Collaboration and Teamwork in Welding Projects • Problem-solving and Troubleshooting in Welding Applications	Dr. S. Ram Prakash	5 Hrs	Workshop Lab

Participants list:

Sl. No	Reg No	Name
1	41150063	RAMANA NANDA M
2	41150078	YELLANKI VAMSI PAVAN KUMAR
3	41150077	VASANTH T
4	41150061	RAHUL SANJAVIN V
5	41150054	NIKHIL SANGEETHB
6	41150052	MOHANDOSS T
7	41150082	CHEEPURUPALLI ANANTHA SATYA CHANDRA SHEKHAR
8	41150081	ASANALA SAIKUMAR
9	41150065	SARANKUMAR V M
10	41150706	DOSTI JASWANTH KUMAR REDDY
11	41150710	NEO NICHOLUS C

12	41150718	VISHAL V
13	41150707	KAMATI BHANU PRAKASH REDDY
14	42150003	ARJUN SARA J
15	42150016	GOPISARAN P
16	42150027	MANO GNANASEKAR G
17	42150040	SABBARESH S
18	42150045	SANJAY KUMAR B
19	42150020	JAFFEER FATHAGU J
20	42150029	MOHAMED RAASHID M.N
21	42150051	SOLOMON N
22	42150001	ALIYUS YOSUVA J
23	42150011	DHYANESH P
24	42150022	JEFFRIN SAM S J
25	42150028	MOHAMED FAROOK S P
26	42150056	TEJASWIN S
27	42150017	GUNASEELAN M
28	42150048	SEENU K
29	42150722	VISHNU KUMAR D Y
30	42150082	BIRSETHA J
31	42150708	DILLIBABU S
32	42150728	PONUGOTI SRIKAR REDDY
33	42150019	IPSITA
34	42150075	TAMILMANI M
35	42150084	ASWIN M P
36	42150707	DHANUSH KUMAR. B
37	42150732	MOHAMED SHAFFIQ A
38	42150080	ROHAN K
39	42150725	MOHAN KRISHNAN R
40	42150723	VIVEK SINGH
41	42150734	RAGURAM A
42	42150054	SIRIPURAPU SURESH BC
43	42150719	SRINEVAASAN P
44	42150737	SANJAY PRIYAN K
45	42150715	KRISHNA KUMAR S
46	42150702	AH SOHITH NADAN
47	42150726	NIYAZ AHMED S

