



TIRUMALA ENGINEERING COLLEGE

An ISO 9001:2015 Certified Institution, Accredited by NAAC

(Approved by AICTE, New Delhi & Affiliated to JNTU, Kakinada)

Jonnalagadda, Narasaraopet, Guntur Dist. - 522601 web : www.tmecnrt.org Email : tecrt@gmail.com



APPLIED ROBOT CONTROL (ARC) LAB

INTERNATIONAL MEMORANDUM OF UNDERSTANDING (MOU)

BETWEEN

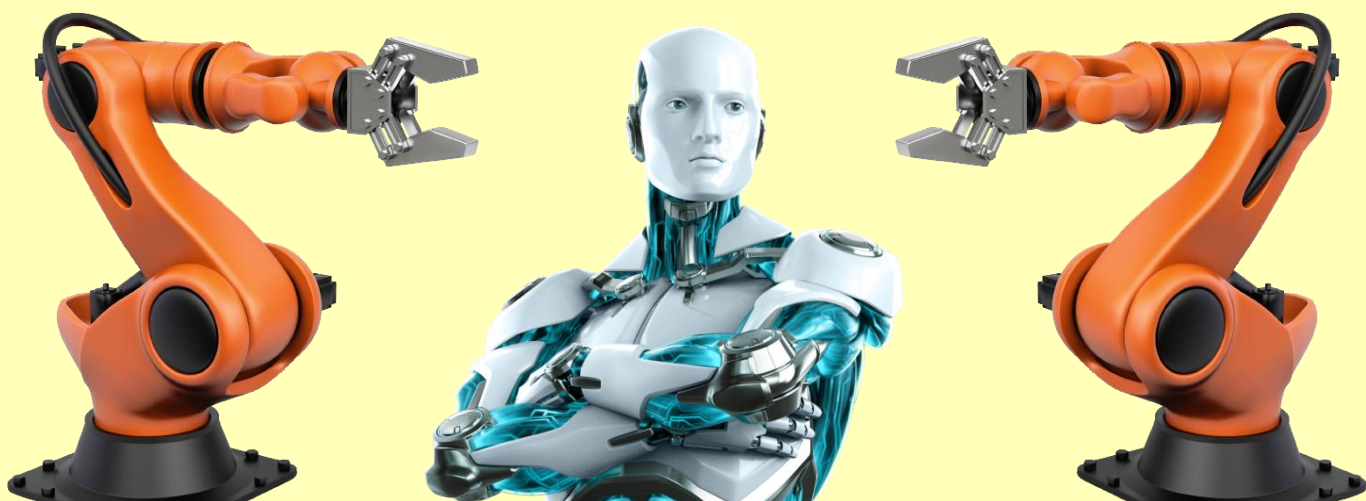
TIRUMALA ENGINEERING COLLEGE

AND

GCGEMS – GC GERMAN CENTER FOR ENGINEERING AND
MANAGEMENT STUDIES UG AACHEN

AND

EUROPEAN CENTER FOR MECHATRONICS APS GMBH AACHEN
GERMANY



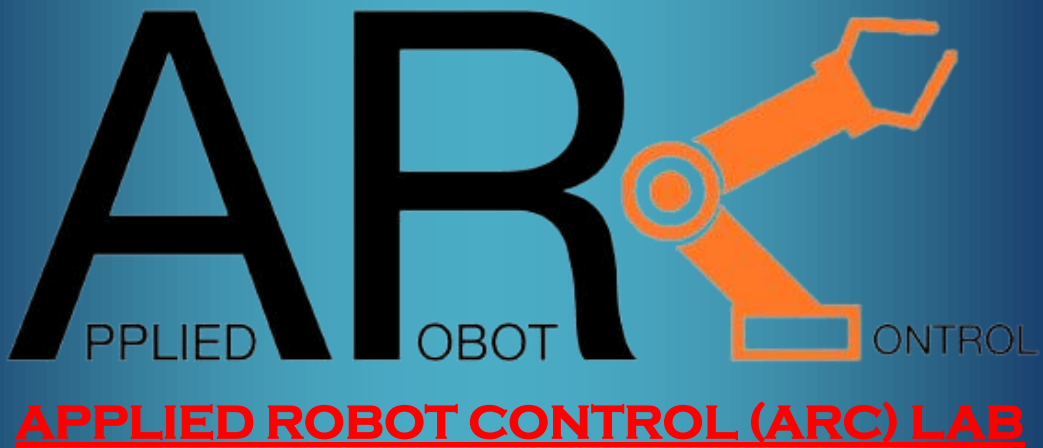


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ABOUT ARC: (APSSDC-ECM-Convergence Training Center)

The Indo European Skilling Centers for Mechatronics and Industrial Robotics at AP are a one-of-a-kind German initiative to establish industry-academia clusters in the disciplines of mechatronics and manufacturing. The European Centre for Mechatronics (ECM) in Aachen, Germany, has been working on robotics, sensor technology, and information and communication technology for more than 31 years. Modern engineers and technicians from diverse disciplines collaborate with national and international industrial partners, public procurers, and researchers to create and implement multidisciplinary concepts and solutions. Assistance for small and medium-sized businesses in the development and utilization of innovative technology is a key concern of theirs. Through this effort to establish an ecosystem for industry to efficiently adopt and apply new technologies, the European Centre for Mechatronics is extending its activities outside of Germany for the first time.

The Andhra Pradesh State Skill Development Corporation (APSSDC) has signed a Memorandum of Understanding (MoU) with the European Centre for Mechatronics (ECM) in Germany to establish Indo-European Skilling Centres in engineering colleges across the state to provide training in mechatronics and industrial robotics in order to improve engineering students' employability.

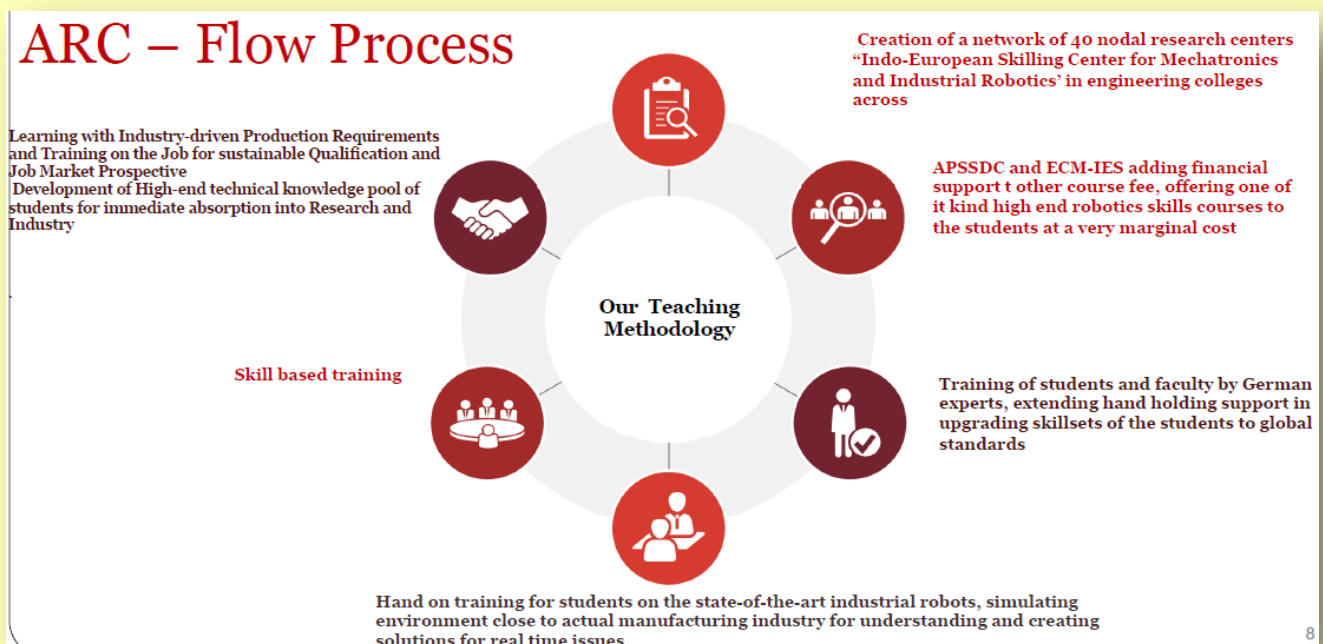
Tirumala Engineering College is working with the European Center for Mechatronics and the APSSDC to create a world-class ecosystem in the disciplines of industrial manufacturing and robotics.

OBJECTIVES:

- Brining latest technologies in automation and manufacturing sectors to the labs of colleges.
- Real-time training to supplement students with skill on advanced technologies to make them standout in global arena.
- First hand experience on industrial robots for the students
- Learning with industry –driven production Requirements
- Creation of knowledge pool of students with high-end technical skills for immediate absorption into research and Industry.

CAPABILITIES:

- This course is a walkthrough in the world of Robotics and extends from beginner to advance levels. Core concepts of Robotics explained in a crisp and lucid manner .



SKILLS ATTAIN TROUGH ARC:

- Student gained knowledge on Key technologies of industry 4.0 such as basics of Mechatronics, Robotics and Integration of both for Smart Manufacturing
- Student gained knowledge on LCA, Expert Systems which is used in industry and perform different robotic tasks by using Cprog Software and IGUS Robot controller
- Student gained knowledge on PLC and Codesys Software and perform different assignment tasks provided.
- Students learned about IIOT with the industry observations.

STUDENTS TRAINING PROCESS:

- Students for the program shall be selected based on their academic record and performance in the ARC eligibility test.
- Apart from theoretical classes, emphasis will be on assignments involving designing tasks/jobs for the robots stationed in ARC Labs of their colleges and also at APS ECM.
- Under experts supervision, students will be able to remotely access and work on the industrial scale robots at the labs of APS ECM, Germany during ARC 2.0.
- The aim is to replicate environment of an industry using advanced robotics, for the students to work on. Helping them evolve from having theoretical knowledge towards practical approach to a problem.

FACULTY TRAINING:

- Faculty attended workshop on Applied Robotic Control Lab as part of Indo European Skilling Centres for Mechatronics and Industrial Robotics by APS GmbH European Center for Mechatronics, Aachen, Germany on 6th – 16th May 2019.

STUDENTS TRAINING:**ARC :: FIRST BATCH**

Name of the Programme	Applied Robot Control :: ARC 1.0
Duration	12 Weeks
From	25-07-2019
To	01-10-2019
Total Number of Students	32 (ECE-17; EEE-4; ME-11)

Name of the Programme	Applied Robot Control :: ARC 2.0
Duration	06 Weeks
From	26-11-2019
To	19-12-2019
Total Number of Students	31 (ECE-17; EEE-4; ME-10)

Name of the Programme	Applied Robot Control :: ARC 3.0
Duration	06 Weeks
From	27-01-2020
To	07-03-2020
Total Number of Students	21 (ECE-09; EEE-4; ME-08)

ARC :: SECOND BATCH

Name of the Programme	ARC INTERNATIONAL INTERNSHIP
Duration	12 Weeks
From	24-02-2021
To	20-04-2021
Total Number of Students	29 (ECE-00; EEE-03; ME-26)

ARC :: THIRD BATCH

Name of the Programme	Advanced certification on Emerging Technologies
Duration	12 Weeks
From	16-11-2021
To	24-03-2022
Total Number of Students	35 (ECE-6; EEE-9; ME-20)

ARC CERTIFICATES

Cert No. ACET210869



Andhra Pradesh State Skill Development Corporation (APSSDC)
Indo-Euro Synchronization (IES)

CERTIFICATE OF APPRECIATION

This certificate is awarded to
Mr./Ms. Kongala G.L.S.N.T.V.R .Tulasi
of Tirumala Engineering College
for successfully completing the Internship in
Advance certification on Emerging Technologies
During **November 2021 - March 2022**

Certification Partners




Indo Euro
Synchronization
Education and Research Resources

Knowledge Partners:





V.V.N Raj
CEO
Indo Euro Synchronization


D.V. Rama Koti Reddy
Executive Director
APSSDC


S. Satyanarayana
Managing Director
APSSDC

Cert No. ARC1901774



Andhra Pradesh State Skill Development Corporation (APSSDC)
APS GmbH European Center for Mechatronics, Aachen, Germany

CERTIFICATE OF APPRECIATION

This certificate is awarded to
Mr./Ms. Sriharsha Vangiti
of Tirumala Engineering College
for successfully completing the Course
APPLIED ROBOT CONTROL 2.0
With Grade A
During **November - December 2019**





GERMAN CENTER
FOR ADVANCED
ENGINEERING AND
MANAGEMENT
STUDIES


President
Indian Affairs
ECM, Germany


Managing Director
ECM, Germany


Executive Director
APSSDC


MD & CEO
APSSDC

ARC :: STUDENTS PROJECTS

SNO	Team members		Project Title
1	16NE1A0215	PODILI AJAY	DESIGNING ARC WELDING APPLICATION USING ROBOTIC SIMULATION SOFTWARE
	16NE1A0222	SHAIK NAGUR BASHA	
	16NE1A0225	YEPURI PEDASAGAR	
	17NE5A0201	BELLAMKONDA PAVAN KALYAN	
2	16NE1A0308	J KODANDA RAMUDU	DESIGN AND SIMULATION OF ARC WELDING ROBOT CELL BASED ON MOTOSIM SOFTWARE
	16NE1A0312	M GOPI DINESH KUMAR	
	16NE1A0334	VANGITI SRIHARSHA	
	17NE5A0310	GUNJA SRINIVASA RAO	
3	16NE1A0310	KOTHURI MANIKANTA	Experimental investigation of position and orientation of industrial robot
	16NE1A0316	PASAM HEMANTH BABU	
	16NE1A0319	PEDASINGU HARI KRISHNA	
	16NE1A0320	P CHANDRA KIRAN	
4	16NE1A0436	DIVELA KOTESWARA RAO	DESIGN AND SIMULATION OF COLLABORATIVE ROBOT CELL FOR MULTIPURPOSE APPLICATION USING MOTOSIM SOFTWARE
	16NE1A0450	GUNDA SAI DIVYA	
	16NE1A0446	GRANDHAM SAIKUMAR	
	16NE1A0457	J.RAM PRASAD	
	16NE1A0460	JANGA BRAHMAMMA	
5	16NE1A0417	BOUSETTY ROHINI	PICK AND PLACE APPLICATION BY USING ROBOTIC SIMULATING SOFTWARE
	16NE1A04F2	TELLURI SHANTHI AASHIKA	
	16NE1A0456	PRIYANKA. INTURI	
	16NE1A0499	MUNNANGI RAJENDRIKA	

ARC :: PHOTO GALLERY

ARC :: FIRST BATCH



ARC 1.0 :: STUDENTS ATTENDING ONLINE LIVE SESSIONS FROM GERMANY



**ARC 2.0 :: STUDENTS ATTENDING ONLINE LIVE SESSIONS
FROM GERMANY**



**ARC 3.0 :: STUDENTS ATTENDING ONLINE LIVE SESSIONS
FROM GERMANY**



ARC LAB INAUGURATION



**ARC 2.0 :: STUDENTS ATTENDING ONLINE LIVE SESSIONS
FROM GERMANY**



ARC LAB INAUGURATION





ARC CERTIFICATE DISTRIBUTION CEREMONY





ARC CERTIFICATE DISTRIBUTION CEREMONY

