



# K.S.R.M. College of Engineering

(AUTONOMOUS)

Approved by AICTE, New Delhi & Affiliated to JNTUA, Ananthapuramu

Accredited by NAAC of UGC

An ISO 14001:2004 & 9001 : 2015 Certified Institution

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## Memorandum of Understanding

College Name: KSRM, College Of Engineering, Kadapa

Date: 26-02-2020

Texas Instruments Innovation Centre (A partner of Texas Instruments India University Program)

### 1. Introduction

India has become a promising investment destination for foreign companies looking to do business here. **Vision India** is a Transformational Human Capital Organization offering customized People and Process solutions in the domain of Skill Development, Staffing and Business Outsourcing by making people Employable, Efficient and Effective. This initiative is expected to spur development, economical growth and thereby improving the living standard of Indian Citizen.

Education has to play very important role in providing huge pool of skilled and knowledgeable, and industry ready Employees. The future success of Indian industry depends on the growth of quality education in India, especially since Indian industry is competing globally in areas such as software and hardware electronics, automobiles, pharmaceutical, chemicals, engineering equipment etc.. However, the reality is that only a very small percentage of these students are readily employable (@25% or less as per the survey by Nasscom) and most lack industry specific skills. In order to bridge this gap between the academia and the industry and to ensure ready deployment in regular work streams, structured industry specific training is necessary. Also you need good support systems for skill development. EdGate is focused towards the same and partnered with worldwide companies to get world class technology on IOT, Embedded, Robotics and Analog systems in India.

### 2. Brief Introduction about KSRM College Of Engineering, Kadapa

KSRM College of Engineering, **Autonomous, established in 1980**, is one of the premier technical educational institutions in AP with an intake of 810 including B.Tech and M.Tech. The institution is Approved by AICTE, New Delhi & Affiliated to JNTUA, Ananthapuramu. Accredited by NBA of AICTE & NAAC of UGC twice so far. An ISO 9001:2008 & 14001:2004 Certified Institution.

Our commitment to technical education focuses on building a deep understanding of concepts, teaching with skill and passion, and communicating ideas that have power in practice. Our students are trained to be proactive individuals who make a difference to the world around them, in their own unique ways. We train and develop world - class leaders, not merely technocrats. Our students inculcate an enviable combination of technical, analytical, quantitative and qualitative skills, which help them to grasp the crux of problems and tackle them effectively. In the process of reaching the corporate we train the students accordingly to acquire employable skills by eminent trainers. We are offering CSE / EEE / ECE / MECH / CIVIL courses in our college.

Further it is bring to your kind notice, that most of the teaching staff working in the departments are possessed doctorates and some of them are pursuing their Doctorates at present. The Mechanical Department has undertaken a Project worth rupees 1,00,00,000/- Titled "DEVELOPMENT OF DUAL FUEL ENGINE" funded by UGC, New Delhi. The Institution is successful in grooming the students to the level of securing **first rank in all India GATE-2006 Examination** and 4<sup>th</sup>, 8<sup>th</sup>, 18<sup>th</sup> and 30<sup>th</sup> Ranks in the Subsequent GATE Examinations.



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Run by Sri Kandula Obul Reddy Charities, Regd. No. 83/1980





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## Rights and Remedies

Recipient shall notify the Company immediately upon discovery of any unauthorized use or disclosure of Confidential Information or Confidential Materials, or any other breach of this Agreement by Recipient and will co-operate with the Company in every reasonable way to help the Company regain possession of the Confidential Information and/or Confidential Materials and prevent further unauthorized use or disclosure.

For KSRM College Of Engineering, Kadapa

For EdGate Technologies Pvt Limit

V. S. S. Murthy

Principal  
PRINCIPAL

K.S.R.M. COLLEGE OF ENGINEERING  
KADAPA - 516 003. (A.P.)

Director.



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KSRM College Of Engineering, Kadapa-TIIC will bring in the following core values:-

**KSRM College Of Engineering, Kadapas:**

- Ultra Low power Microcontroller Lab
- Internet of Things technology is based on the traditional Internet technology, development and extension due to its extremely wide range of applications involving almost all walks of life and therefore in order to meet the needs of industry professionals, a growing number of KSRM College Of Engineering, Kadapas and universities applied for Internet of Things engineering professional in teaching programs arranged in Internet of Things technology courses.
- Strong Branding and ability to attract better quality students.
- Better ranking amongst the competition.

**Students:**

- Exposure to state of the art technologies through hands on learning experience
- Better employability opportunities
- Showcase talent and innovation
- Participating in Texas Instruments Innovation Challenge.(If Texas Instruments conducts any contest centre will be connected with the same)

**Vision forward:**

EdGate Technologies hopes that once these Innovation Centres are in place and running, If Texas Instruments conducts any contest centre will be connected with the same.

**Restrictions and Obligations Governing the Use of Confidential Information and Materials**

- a) Recipient shall not disclose any Confidential Information/Confidential Material, to third parties without the prior written authorization of the Company. Notwithstanding the foregoing, the Recipient shall not at any time disclose to any third party any Confidential Information/Confidential Material or any Confidential Information of any other party to whom the Company owes an obligation. However, the Recipient may disclose Confidential Information in accordance with judicial or other governmental orders, provided the Recipient shall give the Company reasonable notice, prior to such disclosure and shall comply with any applicable protective order or equivalent.
- b) The Recipient shall not use any Confidential Information or Confidential Materials of the Company for any purposes except those expressly contemplated hereby or as authorized by the Company.
- c) The Recipient shall take reasonable security precautions, which shall in any event be as great as the precautions it takes to protect its own confidential information, to keep secure the Confidential Information.
- d) Recipient agrees to segregate all such Confidential Materials from the confidential materials of others to prevent co-mingling.





4	Training for Faculty(Advance Robotic Control and IOT)	3 Days	
5	Training to students(IOT Training) : Registration Material to all participants ( Pens, Pads, Folders)- Internet facility is must for workshop, Certificate to all participating students	50 student/ 20 faculty (3 Days for Students)	
6	TI Lab Poster and TI Lab Signage(Branding Material)		
<b>Terms and Conditions :</b>			
1.Payment:100% Payment in advance			
2.Warranty: 1 Year			
3.Validity: TIIC Lab is perpetual and Training agreement is valid for one year only			
4.Taxes : GST 18% Extra			
Note:Testing &Installation of equipment's will be done in the first set only.			
<u>EdGate Technologies will provide 6 Days of Training. Training will be executed in two events. First event for 3 Days(With testing and installation) for Faculty &amp; Second event - 3 Days (One set) for Students.</u>			

- a) Centre: Institute will identify and maintain Texas Instruments Innovation Centre with at least 10 desktops / laptops on latest home/office configuration.
- b) Peripheral components: Institute will make arrangement for other equipment required for setting up the lab and for the maintenance of the lab.
- c) Financial: Institute will operate the Centre with the help of existing staff.

#### KSRM College Of Engineering, Kadapa-Texas Instruments Innovation Centre (TIIC)

EdGate Technologies aimed at establishing a collaborative bridge between companies and KSRM College Of Engineering, Kadapas with the objective of making students in the Engineering KSRM College Of Engineering, Kadapas and Schools have a greater hands on experience in technologies related to :-

- a. Ultra Low Power Applications
- b. Embedded System (Real time system Design)
- c. Internet of Things (IOT)
- d. Robotics Lab With Brain Wave Technology

These programs would go a long way to get the students hands on project experience in state of the art Micro-controller boards which are being developed by Texas Instruments. The experience will include hands on software and hardware skills which are highly desired by industry. These projects will provide an experiential appreciation of the latest technologies giving the students significant edge across multiple dimensions like knowledge, enhanced employability, project experience etc..





KSRM College Of Engineering, Kadapashould set up lab based on list below:

Sr.No.	ITEM	QUANTITY	APPROXIMATE COST
	Cost of Texas Instruments Innovation Centre: Below items will be delivered	Below Package	4.25 LAKHS
<b>1</b>	<b>Robotics Advance Control And IoT</b>		
A	Robotics System Lab Kit	8	
B	Robotiband with Sync App	1	
C	RSLK compatible sensors and Bluetooth Module	2 Set	
A	PIR sensor		
B	HM-10 Bluetooth module		
C	Ultrasonic sensor		
D	Servo motor		
E	Moisture sensor		
F	Buzzer		
G	Dedicated Edgate Apps for RSLK		
<b>2</b>	<b>Analog Attach MCU Labs (ARM)/Embedded Lab: A secondary Element that attached to</b>		
A	Simple Link™ Sub-1 GHz CC1910 wireless MCU LaunchPad™ development kit	2	
B	TIVA TM4C123G Launchpad Bundle	5	
C	Sensors BoosterPack Plug-In Module	2	
<b>3</b>	<b>Connectivity Attach Lab (Ultra Low Power Lab/Internet of Things Lab (IOT)) : A secondary Element that attached to Micro controller Lab Or standalone solution focusing on connectivity</b>		
A	BOOSTXL-CC1125 Booster pack - 868/915 Application	2	
B	BOOSTXL-CC2650MA	2	
C	Simple Link Wi-Fi CC3100 Booster Pack	2	
D	CC3220SF-LAUNCHXL	2	
E	MSP432P401R Launchpad	2	
F	MSP430F5529 USB Launchpad Evaluation Kit	4	
H	Sensors: <ul style="list-style-type: none"> <li>• Sound Sensor</li> <li>• 3-Axis Accelerometer</li> <li>• Ultrasonic Sensor</li> <li>• Electret Microphone</li> <li>• Water Sensor</li> <li>• Temperature Sensor</li> <li>• Light Sensor</li> </ul>	1 Each	





advanced analog and embedded processing portfolio, the TI University Program provides the tools necessary to inspire innovation and take engineering concepts from the book to the breadboard.

## 1. Contribution and Expectation of EdGate Technologies under Texas Instruments India University Program

As on-ground deliverables, EdGate Technologies will provide the following:

- a) **Curriculum:** EdGate will provide the Curriculum for Texas Instruments Labs. KSRM College Of Engineering, Kadapa should find ways to incorporate curriculum in their syllabus.
- b) **Lab Setup:** The KSRM College Of Engineering, Kadapa will set up a lab which will be entitled "Texas Instruments Innovation Lab" at its premises.
- c) **Faculty Development Program:** KSRM College Of Engineering, Kadapa will organize at least one faculty development program in its premise for its faculty members and faculty members of other Indian engineering institutions to teach TI Platform. The KSRM College Of Engineering, Kadapa will provide the infrastructure facility for conducting the faculty development program. EdGate Technologies Pvt Limited will help the KSRM College Of Engineering, Kadapa in conducting this program.
- d) **Workshops/Events:** If the KSRM College Of Engineering, Kadapa wishes to organize a national event in the area of TI Platform, EdGate Technologies Pvt limited will provide speakers.
- e) **Training Programs:** EdGate Technologies Pvt Limited will assist the KSRM College Of Engineering, Kadapa in organizing training programs/tutorials on topics related to TI Platform. Faculty members from the KSRM College Of Engineering, Kadapa who have undergone train-the-trainer program and who are certified by EdGate Technologies Pvt Limited as trainers may run certified training programs. KSRM College Of Engineering, Kadapa will provide certificates for the participants of such programs. (Valid for 1 year only)
- f) **TI Lab Engagement Program:** EdGate Technologies Pvt. Limited will help the KSRM College Of Engineering, Kadapa to get engaged into the TI Innovation Centre Labs under this program over a period of 3 months at three different levels i.e., Basic, Intermediate and Advanced.
- g) **Under TI Lab Engagement Program,** KSRM College Of Engineering, Kadapa in association with EdGate Technology Pvt. Limited, May organize and conduct Summer/Winter Training Program for the students from all the nearby engineering institutes along with students from their KSRM College Of Engineering, Kadapa by charging moderate fees. EdGate Technologies will provide experts for such program on subsidies charges. EdGate will certify those students.

## 2. Contribution from KSRM College Of Engineering, Kadapa

Faculty Mentor: Qualified Faculty of Electronics & Communication Engineering, Instrumentation & Control Engineering, Biomedical Instrumentation, Computer Engineering, and Information Technology (preferably with programming knowledge on C; C++) will be made point of contacts and will mentor interested students.





### 3. Brief Introduction about EdGate Technologies Private limited

EdGate Technologies Private Limited is Texas Instruments India University Program Partners. EdGate has an extensive presence all over the country and well established connectivity within the academic and corporate communities. Our aim is to reach out to the Corporate, educators and the engineering student community to help them achieve more in their research and their learning initiatives.

#### Services offered to Universities under Texas Instruments India University Program

- Presales Guidelines
- Sales and Continuous Post Sales support
- Installation and Training
- Train the Trainer Program (Customized)
- Seminar/Workshop (Customized)
- Faculty Development programs (Customized).

EdGate has setup Texas Instruments Labs in various Engineering KSRM College Of Engineering, Kadapas across India. EdGate has signed 150+ MOU's and 25 TIIC's with Engineering KSRM College Of Engineering, Kadapas under Texas Instruments University Program.

EdGate Technologies provide a whole range of services by leveraging its business expertise by strategic alliances with leading technology providers & are Sole authorized distributors of following Partners

- Mango Communication, USA : Mango has its roots in the Rice University Wireless Open-Access Research Platform (WARP) project, originally an NSF-funded research Project that has grown into a self-sustaining open-source wireless research platform.
- SoftDB, Canada (Texas Instruments – Third party developer)
- Technosoftmotion, Switzerland (Texas Instruments – Third party developer)
- Neeuro, Singapore (Senzeband Brain Wave Technology)
- Link Research, USA (Texas Instruments – Third party developer)

#### Texas Instruments University Program

The TI University Program is the intersection between TI technology, educators and the engineers of tomorrow. Our advanced analog and embedded processing technologies fuel the passions of students and educators in university labs worldwide. Established in 1982, the TI University Program is a global program dedicated to supporting educators, researchers and students in facilitating the inclusion of TI analog and embedded processing in engineering classrooms, teaching and research labs, textbooks, design projects and course curriculum. By building relationships with educators, TI works to bridge the gap between the business and academic world. Incorporating TI technology into curriculum provides educators with the ability to teach real world concepts and complement this with a unique hands-on learning experience utilizing TI tools, making it more exciting, relevant and valuable to the student.

Working with TI increases the knowledge base of future engineers so that they interact with industry-standard technology before they graduate. TI helps to develop the skills needed to tackle tomorrow's most challenging problems. By providing students access to the largest and most

