# adroitec

### Adroitec/2019-2020/IoT/SVCE/333/R1

### September 26, 2019

To The HoD, Department of ECE, Sri Venkateswara College of Engineering, Pennalur, Sriperumbudur, Chennai-602117

Dear Sir,

## Sub:Proposal for Thingworx IoT -Workshop

### **ABOUT US**

Adroitec Engineering Solutions (P) Ltd is a Global Engineering Solutions provider with state-of-the-art development centers in India. With a team of over 300+ highly qualified and experienced professionals, Adroitec delivers services which are closely aligned with the design-through-manufacturing strategies of its global manufacturing customers, crashing cycle times and reducing costs. Adroitec offers both virtual and physical support through its 8 offices spread across the country.

PTC Business Awards For Adroitec:

Best Support Value Creation to Customer

Platinum Partner to PTC

Best Service Partner

-- Confidential --

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Adroitec Engineering Solutions Pvt. Limited C – 130, Sector 2, Noida - 201 301, UP, India CIN:U72200DL2011PTC216900,Company Mail ID: <u>info@adroitecengg.com</u> Website: <u>www.adroitecengg.com</u>

# **PTC THINGWORX:**

# DELIVERING THE VALUE OF INDUSTRIAL IOT

McKinsey predicts the economic impact of IoT will reach \$11.1 trillion a year by 2025. To help capture this value, the ThingWorx industrial innovation platform helps organizations transform the way they work and compete in a smart, connected world by rapidly delivering IoT applications, AR experiences and much, much more.

# **CUSTOMER SUCCESS:**

"In just six short weeks, we've gained more visibility into our operations than ever before, reinforcing our investment and belief in the power of the IoT. We can now make smarter and timelier decisions that not only impact our CNC shop, but also help us identify how we can operate more efficiently and profitably across all of our facilities."

-Justin Hester, Senior Researcher, HIROTEC AMERICA

# WORKSHOP AGENDA:

Session	Fore-Noon			After-Noon		
Days/Time	9.00-10.00 10.15-11.45		11.45-12.00	12.45-1.30	1.30-2.30	2.30-3.00
16.09.19	Building a Technical Solution for IoT		IoT Hardware	Thing Introdu		Data Model
17.09.19	Things Template creation	Mashup Overview		Data Conr Mas		Custom Application view in Dashboard

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# **INVESTMENT DETAILS**

S.No	Product Details	Price in INR	Special price for SVCE
1	Workshop on Thingworx IoT (2 days)	40,000	15,000

\* Separate Laptops or Systems for the students to be provided for Hands-on experience.

- \* WiFi or Internet facility has to be provided by SVCE
- \* Previous day environmental setup would be done by Adroitec.
- \* Certificates would be provided from Adroitec.

# **TERMS AND CONDITIONS**

Payment : 100% Advance along with confirmed Purchase order

**Taxes**: GST 18% extra as applicable

Validity : 10th October,2019

## **Placement of Order**

Adroitec Engineering Solutions (P) Limited C-130, Sector-2, Noida - 201 301,Uttar Pradesh GST No; 9AAJCA3847P1ZZ HSN No: 85238020 SAC Code: 998313 PAN No: AAJCA3847P

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### **Adroitec Engineering Solutions Pvt. Limited**

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# adroitec

### Details for making payment by NEFT mode

S.No	Information Required	Mandatory Details
1	Supplier Firm Name Address	Adroitec Engineering Solutions (P) Ltd
2	Name of the Supplier's Bank and	ICICI Bank Limited, A-194 Okhla Industrial Area,
	Branch	Phase 1, New Delhi - 110 020
3	Supplier Bank Account Number	Current Account No. 071605000851
4	RTGS/NEFT/IFSC Code	ICIC0000716
5	MICR Code	110229097

We hope the above proposal is in line with your requirement. Should you need any further clarifications, please feel free to contact us

Thanking You For Adroitec Engineering Solutions Pvt Ltd.,

Swathi S,

Sales Engineer - Enterprise Technologies

Mobile: +91-9600393456

Email: swathi.s@adroitecengg.com

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**Adroitec Engineering Solutions Pvt. Limited** 

Page 4 of 4

C – 130, Sector 2, Noida - 201 301, UP, India CIN:U72200DL2011PTC216900,Company Mail ID: <u>info@adroitecengg.com</u> Website: <u>www.adroitecengg.com</u>

#### Sri Venkateswara College of Engineering, Sriperumbudur

#### TWO DAYS HANDS-ON WORKSHOP ON THINGWORX IIOT TOWARDS FUTURE INDUSTRIAL CHALLENGES

#### **Organized by**

#### **Department Of Electronics and Communication Engineering**

#### in collaboration with

#### Adroitec Engineering Solutions (P) Limited, Noida

#### About the workshop:

The workshop is organized on 16th and 17th October 2019 at our department and is open to all our ECE students, having IoT as their area of interest. The participants are strictly limited to maximum of 20 teams with two students per team, based on first come first served basis. The workshop registration fees is Rs.375/- for technically packed two days hands-on session which is very nominal amount for involving the specialized Industrial IOT platform called "THINGWORX" comprising enhanced features, comparing any other IOT platform. This workshop is organized exclusively for the well being to our SVCE students, especially belonging to final year students to do their project work with prior practical knowledge. For registration and for any queries, please contact the event coordinators.

#### **Objective of the workshop:**

- ✓ To introduce Internet of Things
- ✓ To introduce Industrial Internet of Things (IIoT) supporting platform, ThingWorx
- ✓ To Create a Live IoT Application through practical hands-on session
- ✓ To Use Case discussion

#### Outcome of the workshop:

- ✓ Students will be able to build any smart control devices to meet societal need
- ✓ Students will be able to enhance their technical idea for industry based application on their own towards future industrial automation (Industry 4.0) through Virtual or Augmented Reality (VR/AR)

#### Workshop Agenda:

SESSION	FORENOON			AFTERNOON		
DATE/TIME	9.00 -10.00 10.15-11.45		11.45-12.00	12.45-1.30 1.30-2.15		2.30-3.00
16.10.2019	Building a technical solution for IoT		loT Hardware	Overview on Thingworx and Industrial IoT		Data Model
17.10.2019	Things Template Creation	Mashup Overview		Data connecti	on in Mashup	Custom application view in Dashboard

NOTE: Please bring your laptop with its charger which is mandatory for the Hands-on session. OD will be given for the days of your participation.



#### **Event coordinators**

Dr. R.Gayathri, Associate Professor, ECE Mr. S.P.Sivagnana Subramanian, Assistant Professor, ECE Ms. K.S.Subhashini, Assistant Professor, ECE Ms. S.M.Mehzabeen, Assistant Professor, ECE Ms. A.Bharathi Priya, Assistant Professor, ECE Email id : <u>mehzabeen@svce.ac.in; bharathipriya@svce.ac.in</u> Convener Head of the Department Electronics and Communication Engineering Sa Venkaleswara College of Engineering Sriperumbudur - 602 117. Inder

Contact numbers: 9840847247: 7502357937: 9444123626: 9790792194

# SRI VENKATESWARA COLLEGE OF ENGINEERING DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

SVCE/EC/Workshop/IoT/2019-20

09/10/2019

Submitted to the Principal:

Sub: Proposal to organize a two day Hands-on workshop on 'Thingworx IoT in industrial aspects' - reg.

It has been proposed to organize a two days Hands-on workshop on 'Thingworx IoT in industrial aspects' on 16<sup>th</sup> and 17<sup>th</sup> October 2019 which is open to all students and faculty members and is specifically targeted for the students of our college whose area of interest is IoT, to get II, III and IV year students benefited.

It is planned to invite industry resourse persons in this area from Adroitec Engineering Solutions (P) Limited who are directly involved in many private and public sector projects in this IoT platform including Indian Oil Corporation. The company and its resource persons had accepted to conduct the hands-on training session in IoT using their licensed version of the software platform. Thingworx, to our students community. Thingworx licensed platform which is used in this workshop is being practiced in industries towards industry 4.0. The nominal cost involved will be met through the workshop registration fees of the participants. The expected participants are limited to maximum of 40 members.

Also, this workshop will immediately help our final year students who are doing their project in IoT platform and is highly required to these students at his juncture. The knowledge imparted though this workshop will also serve as value added course to other year students.

Hence, it is requested that the above proposal may kindly be approved.

Event Coord

PRINCIP

Head of the Department Electronics and Communication Engineering Sri Venkaleswara College of Engineering Sriperumbudur - 602 117. Indur

# Sri Venkateswara College of Engineering, Sriperumbudur

TWO DAYS HANDS-ON WORKSHOP ON THINGWORX INT TOWARDS FUTURE INDUSTRIAL CHALLENGES

Organized by

# Department Of Electronics and Communication Engineering

in collaboration with

Adroitec Engineering Solutions (P) Limited, Noida

14011		
(Toth and	17th	October 2019)

	Reg.No.	Name	Dept	Roll No.	Year/	College	HEET ~ S	SIGNATURE		
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13	160701095	S.Nagashruthi *	ECE	95	IV/B	SVCE	Shyant	san-	S. Ry cut	Contraction
14	160701144	S.Shriram	ECE	144	IV/C	SVCE	S. Shhiran	5'Shritan	J. shiran	3. Shriman
15	160701146	R.Sitharthen	ECE	146	IV/C	SVCE	R.Sitharthen	Riskharther	R. Sithoption	8. Sithorthen
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25	190701109	Srivanth A ·	ECE	110	I/C	SVCE	Asint	A Stiveth	A sugt	Astra
26	190701086	Rakesh Velavaluri	ECE	91	I/C	SVCE	X-Rayf.	V. Rauf	A.Kauf	*Thank-
27	190701098	Seenivasan A •	FCE	100	I/C	SVCE	p-Suman	A. Instin	A Line	Almi A
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29	190701124	Vignesh S	ECE	124	I/C	SVCE	Vignen	Waresh	Versch	Vegnesh

Event ch (SVCE)

Dr. R.Gayathri, Associate Professor, ECE

Mr. S.P.Sivagnana Subramanian, Assistant Professor, ECE

Ms. K.S.Subhashini, Assistant Professor, ECF

Ms. S.M.Mehzabeen, Assistant Professor, ECE

Ms. A.Bharathi Priya, Assistant Professor, ECE

Event coordinator (Adroitec)

Ms. S.Swathi

Dr. S.Muthukumar HOD -- Dept. of ECE

Dr. S. Muthukumar Professor & Head Department of Bectrocics and Communication Engineering Sri Venkateswara College of Engine ring Pennalur, Irungattukottai - 602 117. Sriperumbudur Taluk, Tamilnadu, INDIA.

SVCE, Pennalur

Dept. of ECE

Faculty members Participation

Two days Hands-on workshop on Thingwork LOT towards Finhre Endustral Chelleges. Organized by Dept. of EEE

in collaboration with

Advoiter Engineening Blutions(P) Ltimbed, Noide (16 R, 17th Oct 2019)

1. Dr. R. Gayathin, Asso. Rug. - ECE 2. Mrs. K.S. Subhashini, AP-ECE dut 3. Mr. S. Senthil rajan, AP-ECE - South Rim S. Kult. Ms. S. Kalyani, AP-ECE G. Ms. R. Kousalya, AP-ECE - 2 Lous 5. L. Anju, AP-ECE Ms. 6. 7. Mr. M.K. Varadaroyan, AP-ECE M.22. VO S. M. Mehzabeen, AP-ECE SH. Welizabee Mrs 8. A. Bharathi priya, AP-ECE - Blowlyppi 9. Ms. 10. Mr. S.P. Sivagnang Inbromanian, AP. ECE. Dr. S. Mathukumar dinator Professor & Head Department of Electronics and Communication Engineering

Note:

Participation Certificates were issued to the above ten faculty members for their active participation.

Pennalur, Irungattukottai - 602 117. Stiperumbudur Taluk, Tamilnadu, INDIA.

Sri Venkaleswara College of Engineering,

# Sri Venkateswara College of Engineering

Autonomous Institution, Affiliated to Anna University, Chennai. Approved by the A.I.C.T.E. Accredited by NAAC Post Bag No. 1, Pennalur, Sriperumbudur Tk. 602117 India. Phone : 91-44-27152000 (20 Lines) : 27163783/27163784/27107016 Fax : 91-44-27162462 / 27162494 Email : acm@svce.ac.in URL : https://www.svce.ac.in



Date: 9th October 2019

Adroitec Engineering Solutions (P) Limited, C-130, Sector-2, Noida - 201 301, Uttar Pradesh state.

To

Ref: Adroitec/2019-2020/IoT/SVCE/333/R1 dated 8th october 2019.

Sub:Conduction of Two days Hands-on Workshop on 'Thingworx IoT in industrial aspects' - reg.

With reference to your proposal sent for organizing two days workshop on Thingworx IoT at our college premises to our students and faculty members, the dates (16<sup>th</sup> and 17<sup>th</sup> October 2019) for the workshop is hereby confirmed from our side. Also, the required facilities and infrastructure cited in the proposal for the conduction of workshop will completely be provided at our end. Our department will ensure to provide you the support during the event and on previous day of the workshop event for environmental setup required for the purpose of hands-on session to 20 teams of participants. The nominal cost and expenditure involved will be suitably remunerated to the team of resource persons for the conduction of the event.

We are glad to invite your team for the successful conduction of event at our department on the above said dates. Also we feel happy to have such initiative for encompassing Industry Institute Interaction between SVCE and Adroitec Engineering Solutions (P) Limited. We are looking forward from Adroitec for carrying out many events such as internship/Inplant training/Academic projects, etc for the students' community in near future.

> HOD - ECE Dr. S. Muthukumar Professor & Head Department of Electronics and Communication Engineering. Sri Venkateswara College of Engineering. Penhalur, Irungattukottai - 602 117. Sriperumbudur Taluk, Tamilnadu, INDIA.

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Sri Venkateswara College of Engineering, Sriperumbudur

# **REPORT ON TECHNICAL WORKSHOP**

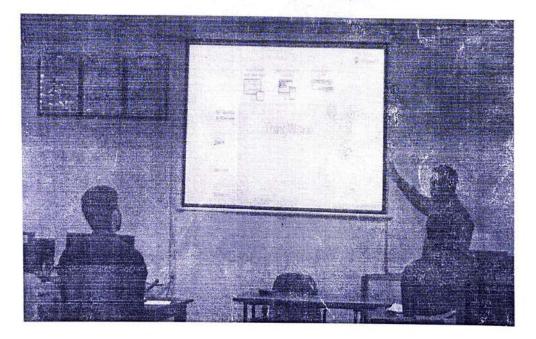
# TWO DAYS HANDS-ON WORKSHOP ON THINGWORX 110T TOWARDS FUTURE INDUSTRIAL CHALLENGES Organized by

Department Of Electronics and Communication Engineering

in collaboration with Adroitec Engineering Solutions (P) Limited, Noida

### Odd semester :: 2019-20

The hands-on workshop was organized on 16th and 17th October 2019 at our department DSP lab and is open to all our ECE students and faculty members, having IoT as their area of interest. The participants were strictly limited to maximum of 20 teams with two students/faculty members per team and the same was registered based on first come first served basis.



The workshop was coined for technically packed two days with hands-on session by the resource person, Mr. Sasikiran with industrial experience from Adroitec, utilizing specialized Industrial IOT platform called "THINGWORX" which comprises enhanced features, comparing any other IOT platform. This workshop was organized exclusively for the well being to our SVCE

students, especially belonging to final year students to do their project work with prior practical knowledge and for other students as 'Value added course'.



Workshop was started with basics of Internet of Things and introduced Industrial Internet of Things (IIoT) supporting platform, ThingWorx for Industry 4.0. Live IoT Application was created through practical hands-on session. Case study was also discussed as per the schedule below.



SESSION		FORM					
DATE/	FORENOON			AFTERNOON			
TIME	9.00 -10.00	10.13-11.45	11.45-12.00	12.45-1.30	1.30-2.15	2.30-3.00	
16.10.2019	Building a technical solution for IoT		IoT	Overview on Thingworx			
	Things		Hardware	and Industrial IoT		Data Model	
17.10.2019	Template Creation	Mashup Overview		Data connection in Mashup		Custom application view in Dashboard	

Mr. Sasikiran had delivered the content continuously for two days without compromising the quality of content delivery right from 1st day, 1st session till 2nd day, last session with atmost energy. This event helped to impart the updated knowledge on IIOT through thingworx-Hands on practice to all participants. As per students' feedback, the event was much more useful and the resource person had delivered the entire contents step by step in such a way to completely follow each and every task.

Event coordinators (SVCE)

Mr. S.P.Sivagnana Subramanian Dr. R.Gayathri Ms. K.S.Subhashini Ms. S.M.Mehzabeen Ms. A.Bharathi Priya

#### Event coordinator (Adroitec)

Ms. S.Swathi

#### Convener

Dr. S.Muthukumar HOD – Dept. of ECE

illus Gur.

Head of the Department Electronics and Communication Engineering Sai Venkaleswara College of Engineering Sriperumbudur - 602 117. India



SRI VENKATESWARA COLLEGE OF ENGINEERING

FEEDBACK FROM THE SPEAKER - GUEST LECTURE

DEPARTMENT	ECE
Name of the Speaker	: Sasikiran.c.
Designation	: Application Engineer.
Institution/University/Organisati	on: SUCE (Advoited Enggineering Solutions)
Mobile / E-mail	: 9940846631/
Title of the Lecture	: IOT workshop using Thingwork
Date	: 16,+7,-10-2019
Time	: 9-3PM
Venue	: SUCE
Comments by the Speaker Good Accommedation.	: well allarge the Lab set and.
1	
Suggestions for improvement	Excellent facility No improvent. For future we need wi-Fi connectivity for IOT.
Signature of the Speaker	: Atri
Signature of Coordinator Si Ven	Head of the Department ics and Communication Engineering katesware College of Engineering signature of HOD



#### SRI VENKATESWARA COLLEGE OF ENGINEERING

### FEEDBACK - INPLANT TRAINING / SHORT TERM COURSE

₿. Subhashree ECE/ I / c/111 Name of the Student Branch/Semester/Section/Roll No. Industry/ Institution Visited 2 days/ 16/10 - 17/10 Duration of Training/ Course with date Plants visited during training Whether the training/Course was useful? In what way? Give reasons. yes. It gave a beatform to know more about 201 about industries and KNOW ю Any other suggestions If we get to know about firither workshops, it will be more useful for un. Signature Report and Copy of Certificate submitted. Dithis HOD

The person who has attended the course should prepare this in triplicate and submit copies to: A2, A3 and Dept.

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Head of the Department Electronics and Communication Engineering Sit Venkalesswara College of Engineering Sripenumbudur - 602 117. India

TWO DAYS HANDS-ON	Department Of Electronic in coll Adroitec Engineerin	ORX IIoT TO rganized by es and Comm aboration wi	WARDS FUTUR unication Engine th ') Limited, Noida	E INDUS eering	STRIAL CHALLENGES
	REGIST	RATION F	ORM		
Name of the student	: B. SUBHASHE	E			
Register number	: 190701110				
Year of study/Departm	ent: 2019 1st year	l ece			
College	SRI VENKETES	SWARA	LOLLEGE	OF	ENGINEBRING
Email ID	: jaisubhar7@1gr	nail.com			
Mobile No.	· 9025824245		6		
Registration amount	: Rs. 375/-		(4	fV	
			Signature	ofpartie	cipant

Sri Venkateswara College of Engineering, Sriperumbudur TWO DAYS HANDS-ON WORKSHOP ON THINGWORX HoT TOWARDS FUTURE INDUSTRIAL CHALLENGES Organized by Department Of Electronics and Communication Engineering in collaboration with Adroitec Engineering Solutions (P) Limited, Noida (16th and 17th October 2019)

### REGISTRATION FORM

Name of the student	: N. SIDDIQUE AFROAZ	
Register number	: 190701101	
Year of study/Departmen	1: 1 St YEAR ECE	
College	SRI VENKATESWARA COLLEGE OF	ENGINEERING
Email ID	: sidelyafiaaz@gmail.com	
Mobile No.	: 8248698383	
Registration amount	: Rs. 375/-	. HEL

Signature of participant

Duthistquer.

Head of the Department Electronics and Communication Engineering Sa Venkaterwara College of Engineering Sriperumbudur - 602 117. India

#### Brief Profile of guest speaker cum resource person, Mr.SASIKIRAN

- Mr.SASIKIRAN is working as 'Application engineer' in Adroitec Engineering Solutions Private limited, Nungambakkam, Chennai.
- He has hands-on experience in using 'Thingworx', the IOT platform which facilitates for industrial automation.
- He had conducted Thingworx IOT and Vuforia AR workshops to many engineering college students and faculty members in industrial and research perspective.
- He had interacted with many automation industries across the states in India and had given technical guidance.

Event coord SVCE)

Duthistquar.

Head of the Department Electronics and Communication Engineering Sa Venkalezwara College of Engineering Sriperumbudur - 602 117. Inder

