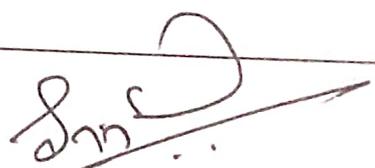# KCES's College of Engineering and Management, Jalgaon
Department of Electronics and Computer Engg.
Activity Report

Name of The Activity : Guest Lecture on "How to build Embedded startup"

Category of activity	Curricular- Academic		Sub-category- Technical
In collaboration (if yes, specify details)	Ecruxbot pvt.ltd.		
Date/ Time and Duration	14/11/2025 10.00PM-2.00 PM	No of Participants:	76
Participants profile:	Student of E&C Department (BE /TE/SE E&C)		Others participants: Director of company
Location of activity	Room No.110		
Name of Co-ordinator (S)	Prof. S.D.Patil		
Guest/ Experts with designation (If any)	Mr.Hitendra Valhe Mr.Bhagyesh Tajane		
Objectives for conducting activity	• To expose students to real-time embedded system development and product creation. • To understand how innovative ideas can be transformed into commercially viable products		
Methodology	PPT/Practical-Equipments		
Out-Comes	• Clear knowledge of **how an embedded startup is formed and operated.** • Awareness of **industry workflows,** tools, and development cycles. • Motivation to take up **entrepreneurship in IoT and embedded systems**		

Coordinators

Prof.Sneha Patil

HOD

Prof.N.G.Sarode
Electronics & Computer Engineering
KCES'S College of Engineering &
Management.Jalgaon

Principal

Dr.S.R.Sugandhi
PRINCIPAL
K.C.E SOCIETY'S
OF ENGG. &
JALGAON

Date: 11/11/2025

<u>NOTICE</u>

All students are hereby informed that a **Guest Lecture** on "**How to Build a Tech Startup: Lessons from Embedded Entrepreneurs**" has been organized by the Department of Electronics and Computer Engineering on 14/11/25 at 11 am in Room No.111.

The session will be conducted by **Mr.Hitendra Valhe and Mr.Bhagyesh Tajane, Founder of Ecrucbot Tech pvt.ltd.,** who will share valuable insights and practical knowledge related to the topic.

All students are required to attend the lecture punctually. Attendance will be recorded, and participation in this session will be considered as part of your academic enrichment activities.

Don't miss this opportunity to learn from an expert and enhance your understanding of the subject.

Sign of Activity Coordinator
Mrs.S.D.Patil

Sign of HoD
Mrs.V.G.Sarode
HOD
ectronics & Computer Engineering
‹CES'S College of Engineering &
Management,Jalgaon

KCES's College of Engineering and Management, Jalgaon
Department of Electronics and Computer Engg.
Activity Report

➤ Objectives of the Session

The primary objectives of the expert lecture were:

- To introduce students to the procedural steps involved in building an embedded startup.
- To expose students to real-time embedded system development and product creation.
- To understand how innovative ideas can be transformed into commercially viable products.
- To develop entrepreneurial thinking in engineering students.
- To provide industrial insights into embedded technology trends and required skill sets.

➤ Detailed Description of the Event

The event commenced at 10:00 AM with a formal welcome of the speakers by the department coordinator. The session was divided into multiple segments to ensure comprehensive learning.

1. Introduction to Embedded Startups

The speakers explained:

- What constitutes an embedded startup
- Difference between product-based and service-based electronics companies
- Growth trends in embedded systems, IoT, and automation sectors
- Importance of innovation and problem-solving

2. Technical Foundation Required

Speakers discussed the essential technical skills needed to build a startup:

- Understanding of **microcontrollers** (ESP32, STM32, AVR, PIC, ARM)
- Hands-on knowledge of **embedded C, Python, and firmware development**
- **PCB design** using KiCad, Eagle, or Altium
- Basics of **sensors, actuators, communication protocols, IoT modules**
- Real-time testing methods and debugging strategies

3. Product Development Life Cycle

A detailed step-by-step explanation was provided on how an embedded product evolves:

1. **Problem Identification & Ideation**
2. **Market Research & Requirement Analysis**
3. **Circuit Design & Schematic Development**
4. **PCB Layout, Fabrication, and Assembly**
5. **Microcontroller Programming & Firmware Testing**
6. **Prototype Development & Validation**
7. **Debugging, Optimization & Field Testing**
8. **Production Scaling**
9. **Certification & Compliance (EMI/EMC, Safety Standards)**
10. **Product Launch & Customer Deployment**

KCES's College of Engineering and Management, Jalgaon
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4. Practical Demonstrations

Speakers demonstrated several real-life embedded prototypes:

- IoT-based smart monitoring devices
- Automation control boards
- Bluetooth/Wi-Fi based embedded modules
- Sensor-integrated embedded circuits

Students got practical exposure to how these devices are designed, programmed, and tested.

5. Business and Entrepreneurship Insights

The session highlighted business strategies including:

- How to convert student projects into sellable products
- Cost estimation, component sourcing, and bill of materials (BOM)
- Approaching clients and industries
- Government funding schemes for startups
- Importance of prototype-to-product transition
- Building a startup team and required roles (developer, designer, marketer)

6. Interactive Q&A Session

Students actively participated and asked questions on:

- Career opportunities in embedded systems
- Hardware vs. software roles in electronics
- How to start freelancing or consulting in embedded domain
- Required tools and kits to begin learning at home
- Business challenges faced by new startups

Speakers shared real-world examples and guided students toward practical learning pathways.

➢ Key Outcomes:

After attending the session, students achieved the following learning outcomes:

- Clear knowledge of **how an embedded startup is formed and operated.**
- Awareness of **industry workflows,** tools, and development cycles.
- Motivation to take up **entrepreneurship in IoT and embedded systems.**
- Understanding of **converting academic projects into marketable solutions.**
- Improved clarity on career paths such as embedded programmer, PCB designer, IoT developer, and electronics product engineer.
- Enhanced interest in hands-on electronics design and innovation.

KCES's College of Engineering and Management, Jalgaon
Department of Electronics and Computer Engg.
Activity Report

➢ Overall Student Feedback:

Feedback collected from participants highlighted:

- The session was **highly informative and industry-oriented**.
- Students appreciated the practical demonstrations and real-time examples.
- The talk boosted their confidence in pursuing embedded projects.
- The entrepreneurial discussion helped them understand business aspects in technology.

➢ Conclusion:

The guest lecture on **"How to Build Embedded Startup"** successfully enriched the knowledge of E&C students regarding embedded systems, IoT technology, and entrepreneurship.
The insights provided by Ecruxbot Pvt. Ltd. experts were highly valuable for shaping the technical and entrepreneurial mindset of students. The department expresses gratitude to the speakers, faculty members, and the coordinator for organizing a beneficial and engaging technical event.

➢ Glimpse of Activity:

KCES's College of Engineering and Management, Jalgaon
Department of Electronics and Computer Engg.
Activity Report

दैनिक महाराष्ट्र सारथी

के.सी.ई. इंजिनिअरिंग अँड मॅनेजमेन्ट स्वायत्त महाविद्यालयांत एम्बडेड स्टार्ट अप वर व्याख्यान संपन्न

दै. महाराष्ट्र सारथी वृत्तसेवा
जळगाव । प्रतिनिधी :

के.सी.ई. सोसायटीचे कॉलेज ऑफ इंजिनिअरिंग अँड मॅनेजमेन्ट स्वायत्त महाविद्यालयांत इलेक्ट्रॉनिक्स अँड कॉम्प्युटर विभागातर्फे द्वितीय ते अंतिम वर्ष शिकत असलेल्या विद्यार्थ्यांसाठी एम्बडेड स्टार्ट अप वर व्याख्यानाचे आयोजन केले होते.

एकरुक्सबॉट प्रा. लि कंपनीचे संस्थापक श्री हितेंद्र वाल्हे आणि श्री भाग्येश ताजणे यांनी विद्यार्थ्यांना एम्बडेड तंत्रज्ञानाचे वाढते महत्त्व, आयओटी आधारित स्टार्टअपची संधी आणि हार्डवेअर-सॉफ्टवेअर इंटिग्रेशनचे व्यावसायिक उपयोग याबद्दल सविस्तर मार्गदर्शन केले. स्टार्टअप सुरू करतांना येणाऱ्या प्रमुख अडचणी - जसे की प्रोटोटायपिंग खर्च, सोर्स सेन्सर/मायक्रोकंट्रोलर निवड, फर्मवेअर डेव्हलपमेंट, आणि ग्राहकांच्या गरजेनुसार प्रॉडक्ट डिझाईन - यावरही प्रकाश टाकला.

कार्यक्रमाला महाविद्यालयाचे प्राचार्य डॉ. संजय सुगंधी यांचे मार्गदर्शन लाभले तसेच कार्यक्रमाचे समन्वयक प्रा. स्नेहा पाटील यांनी कार्यक्रम यशस्वीतेसाठी परिश्रम घेतले. या प्रसंगी डीन ऑफ अकॅडमिक प्रा. राहुलकुमार पटेल, आणि ए सी समन्वयक प्रा. कल्पेश महाजन, विभाग प्रमुख प्रा. वैशाली सरोदे यांची उपस्थिती होती.

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गूक २०२५ — पुण्य प्रताप ४

बुधवार दि.१९ नोव्हेंबर २०२५

के सी ई इंजिनिअरिंग अँड मॅनेजमेन्ट स्वायत्त महाविद्यालयांत एम्बडेड स्टार्ट अप वर व्याख्यान संपन्न

जळगाव - के. सी. ई. सोसायटीचे कॉलेज ऑफ इंजिनिअरिंग अँड मॅनेजमेन्ट स्वायत्त महाविद्यालयांत इलेक्ट्रॉनिक्स अँड कॉम्प्युटर विभागातर्फे द्वितीय ते अंतिम वर्ष शिकत असलेल्या विद्यार्थ्यांसाठी एम्बडेड स्टार्ट अप वर व्याख्यानाचे आयोजन केले होते. एकरुक्सबॉट प्रा. लि कंपनीचे संस्थापक श्री हितेंद्र वाल्हे आणि श्री भाग्येश ताजणे यांनी विद्यार्थ्यांना एम्बडेड तंत्रज्ञाचे वाढते महत्त्व, आयओटी आधारित स्टार्टअप्सची संधी, आणि हार्डवेअर-सॉफ्टवेअर इंटिग्रेशनचे व्यावसायिक उपयोग याबद्दल सविस्तर मार्गदर्शन केले. स्टार्टअप सुरू करतांना येणाऱ्या प्रमुख अडचणी - जसे की प्रोटोटायपिंग खर्च, सोर्स सेन्सर/मायक्रोकंट्रोलर निवड, फर्मवेअर डेव्हलपमेंट, आणि ग्राहकांच्या गरजेनुसार प्रॉडक्ट डिझाईन - यावरही प्रकाश टाकला. कार्यक्रमाला महाविद्यालयाचे प्राचार्य डॉ. संजय सुगंधी यांचे मार्गदर्शन लाभले तसेच कार्यक्रमाचे समन्वयक प्रा. स्नेहा पाटील यांनी कार्यक्रम यशस्वीतेसाठी परिश्रम घेतले. या प्रसंगी डीन ऑफ अकॅडमिक प्रा. राहुलकुमार पटेल, आणि ए बी ई सी समन्वयक प्रा. कल्पेश महाजन, विभाग प्रमुख प्रा. वैशाली सरोदे यांची उपस्थिती होती.

दिव्य मराठी — जळगाव सिटी 19-11-2025

उपक्रम • 'ऑम्बेडेड स्टार्टअप'वर केसीई इंजिनिअरिंग महाविद्यालयात व्याख्यान

जळगाव | केसीई सोसायटीचे कॉलेज ऑफ इंजिनिअरिंग अँड मॅनेजमेंट स्वायत्त महाविद्यालयात इलेक्ट्रॉनिक्स अँड कॉम्प्युटर विभागातर्फे द्वितीय ते अंतिम वर्ष शिकत असलेल्या विद्यार्थ्यांसाठी 'ऑम्बेडेड स्टार्टअप' या विषयावर व्याख्यान घेण्यात आले. एकरुक्सबॉट कंपनीचे संस्थापक हितेंद्र वाल्हे व भाग्येश ताजणे यांनी विद्यार्थ्यांना ऑम्बेडेड तंत्रज्ञानाचे वाढते महत्त्व, आयओटी आधारित स्टार्टअपची संधी आणि हार्डवेअर-सॉफ्टवेअर इंटिग्रेशनचे व्यावसायिक उपयोग याबद्दल मार्गदर्शन केले. प्राचार्य डॉ. संजय सुगंधी यांनीही मार्गदर्शन केले. समन्वयक प्रा. स्नेहा पाटील यांनी सहकार्य केले. या वेळी प्रसंगी डीन ऑफ अकॅडमिक प्रा. राहुलकुमार पटेल उपस्थित होते. स्टार्टअप सुरू करताना अनेक अडचणी येतात. यासह विविध विषयांवर सविस्तर माहिती दिली.

KCES's College of Engineering and Management, Jalgaon
Department of Electronics and Computer
Activity Report

Attendance list of participants

NAME OF PROGRAM:- Guest lecture on How to start embedded Enterpreneurship

DATE:- 14/11/25

SR NO	NAME OF PARTICIPANTS	CLASS	SIGNATURE
1	Divya Mohalan	ENC (T.Y)	Div
2	Samrudhi Shelake	ENC (T.Y)	Sok
3.	Janhavi Gualphade	E&C (T.Y)	Janhavi
4	Suhani Shirame	E&C (T.Y)	Suhani
5	Neha Chaudhari	E&C (S.Y)	N.P.Chaudhari
6	Gayatri J. Bari	E&C (S.Y)	G.Bari
7	Ankita G. khairnoz	E&C (S.Y)	Akhairnore
8.	Tejal Vinod Rajput	E&C (S.Y)	TRajput
9	Sandhya R. Sonawane	E&C (S.Y)	Span.
10.	Bhumika .C. Bhangale	E&C (S.Y)	Bhangale
11.	Tejasvini .S. Dbangar	E&C (S.Y)	Dhangar
12.	Tejaswini P. Patil	E&C (S.Y)	P.Patil
13.	Vaishnavi B. aarkhe	E&C (S.Y)	VBarkhe
14.	Vedika V mahajan	E&C (S.Y)	Vmahajan
15.	Yashshri & Wagh	E&C (S.Y)	Ywagh
16	Nakshatra. H. Patil	E&C (S.Y)	Nuuu
17	Radhika Burhate	E&C (S.Y)	RBurhate
18	Sakshi S. Telharkar	E&C (S.Y)	STelharkar
19	dolly kath khadke	E&C (S.Y)	T.Khadke
20	Punam Anil Yeole	E&C (T.Y)	Punam
21	Komal Manoj chaudhari	E&C (T.Y)	Kchaudhari
22	Vaishnavi. M. Rajput	E&C (T.Y)	Vaishnavi
23	Trupti .U. Patil	E&C (T.Y)	TPatil
24	Harshada. N. Patil	E&C (T.Y)	HPatil
25	Mansi G. Bendale	E&C (T.Y)	m. Bendale
26	Dhani Promod Kolhe	E&C (S.Y)	@kolh

KCES's College of Engineering and Management, Jalgaon
Department of Electronics and Computer
Activity Report

Attendance list of participants

NAME OF PROGRAM:- Guest lecture on How to Start Embedded Enterpreneurship

DATE:- 14/11/25

SR NO	NAME OF PARTICIPANTS	CLASS	SIGNATURE
27	Kunjal Kailas mahajan	S.Y (E&C)	Pmahajan
28	Vijaya Sharad Sonwane	S.Y (E&C)	Sonwane
29	Pooja Bhushan Sangan	S.Y (E&C)	PSangar
30	Rani Dattatray patil	Sy (E&C)	(Rpatil)
31	Nilam Vinod Shimpi	Sy (E&c)	NShimpi
32	Dimpal L.chaudhari	Sy [E&C]	Chaudhari
33	Mansi D.chaudhari	Sy [E&C]	mansi
34	Gayatri.S. Mahale	TY (E&C)	Hmahale.
35	Suhani S.S		Sas
36	Yash. R. Kulraja	Sy (E&C)	Yash
19	Chetan. K. Koli	Sy (E&C)	C.K.Koli
22	Piyush.S. kothawade	Sy (E&C)	PSK.
62	Aniket.V. Patil	Sy (E&C)	Apatil
66	Jitendra Mishra	Sy (E&C)	Jtmishra
67	Sumits Bhagat	Sy (E&C)	Bhagat
40	Yash Maheshwagh	Sy (E&C)	Maheshwagh
28	Nikhil Girrase	Sy (E&C)	Girrase
29	Rushikesh. Patil	Sy (E&C)	Patil
31	Divesh Bhule	Sy (E&C)	Divesh Bhule
32	Ram V. Mahajan	Sy (E&C)	Rvmahajan
33	Kunal Kale	Sy (E&C)	Kkale
55	Lokesh metkar	BE (E&C)	Lmet
26	chetan pawar	BE (E&C)	Cpawar
25	Tushar pawar	BE (E&C)	Tpawar
37	Harshal Yogesh Patil	S.Y (E&C)	Hpatil

KCES's College of Engineering and Management, Jalgaon
Department of Electronics and Computer
Activity Report

Attendance list of participants

NAME OF PROGRAM:- Guest lecture on How to Start Embedded Enterpreneurship

DATE:- 14\11\25

SR NO	NAME OF PARTICIPANTS	CLASS	SIGNATURE
38	Nishant saindane	TY (EC)	Rohny
39	Rohit Patil	TY (EC)	
40	Sanchit C. Sapkale	SY (EC)	
41	Nainesh H. chaudhari	SY (EC)	
42	Tejas .J. Patil	TY (EC)	Tejas
43	Ketan. P. Kolambe	TY (EC)	@PKolambe
05	Lokesh m. Raisinge	SY (EC)	Rakeshb
35	Vivek S. chauhan	sy (E&C)	V.Shauhan
49	Harish Anil patil	sy (EC)	H.A.Punle
50	samrudhi shelake	Ty (Ec)	SPP
49	Dakshata Bharat patil	B.E(E&CE)	Dwati
59	Rutuja Sharad Katare	B.E(E&CE)	Rutja
32	Lokesh D. chaudhari	By (E&C)	Dhadhi
48	Dipika K. Sali	T.Y (E&C)	Dipali
41	Shraddha A Patil	T.Y (E&C)	Patil

KCES's College of Engineering and Management, Jalgaon
Department of Electronics and Computer
Activity Report

Attendance list of Participants

NAME OF PROGRAM:- Guest Lecture on "How to build embedded Startup"

DATE:- 14/11/25

Sr. No.	NAME OF PARTICIPANTS	DESIGNATION	SIGNATURE
1	Yash Yogaraj Patil	B.Tech	Patil
2	Amol Sonawane	B.tech	Amol
3	Nishant saindane	B.Tech	
4	Pinam Anil Yeole	B.teh	
5	Raj.s. Chaudhari	B.tech	
6	Pawan chaudhari	B.tech	P.K.C.
7	Samrudhi shelake	B.tech	SRH.
8	Manish C. Patil	J.Y B.Tech	Joshi
9	mansi Gendraj Bhirud.	B.tech	m.G.B.
10	Mohammed Moin Shaikh	Btech	
11	Vinay Dhanore	B.Tech	
12	Tejas J. Patil	B.Tech	tijo
13	Ketan.P.kalambe	B-Tech	P.P.kalamb
14	Anjali Madhukar patil	B.tech	Ampatil
15	Raj Ganesh Pawar	B.te ch	Rpawar
16	Vaishnavi.m.Rajput	B.tech	Vaishnavi
17	Minal lotan patil	B.tech	MPatil
18	Maheshwari.H.Sutar	B.tech	Sutar
19	mansi Ghanshyam Bendale.	B.tech	
20	Hemal Vilas Dhande	B.tech	
21	Chaitali Dilip Teli	B.tech	C.D.T
22	Sakshi Jagannath Mahujan	B.tech	Mahajan
23	Divya Suklal Mahajan	b.tech	
24	OM LILADHAR PATIL	b.tech	Patil
25	Komal minaj chaudhari	b.tech	Kchaudhari
26	Kunchal Subhash Dhangar	b.tech	Kunchal

Khandesh College Education Society's
College of Engineering and Management, Jalgaon
(Approved by AICTE, New Delhi; Recognised by Government of Maharashtra and DTE, MS, Mumbai;
Affiliated to KBCNMU, Jalgaon (PG programs in Management), DBATU, Lonere (UG/PG program in
Engineering) and MSBTE, Mumbai (Diploma Engineering)
NAAC B++ Accredited
Behind DIC, Near IMR Campus, NH – 6, Jalgaon – 425001 Phone: 02572242025/26/27
email: coeit.inquiry@gmail.com   website:https://coem.kces.in

Date 14.11.2025

Outward No CoEM/ADMIN/2025-26/328

To
Mr.Bhagyesh Tajane
Director,
Ecrucbot pvt.ltd.

Subject: *Invitation to Deliver a Guest Lecture on "How to Build a Tech Startup: Lessons from an Embedded Entrepreneur"*

Respected Sir,

Greetings from **KCES's College of Engineering and Management,Jalgaon(Autonomous Institute)**

We are delighted to invite you to deliver a **guest lecture** on the topic *"How to Build a Tech Startup: Lessons from an Embedded Entrepreneur."* The session is part of our ongoing initiative to inspire students and aspiring innovators to explore entrepreneurship in technology and embedded systems.

Your extensive experience and accomplishments in the tech startup ecosystem make you an ideal speaker to share valuable insights on building sustainable ventures, overcoming early-stage challenges, and leveraging embedded technologies for innovation.

The lecture is scheduled to be held on **14 November 2025 at 11.00am**, at **Room No.111, Department of Electronics and computer Engineering, KCES's COEM,Jalgaon.** The audience will include students, and young entrepreneurs eager to learn from your journey.

We would be honored by your presence and look forward to your acceptance of this invitation. Please let us know your availability and any logistical or technical requirements you may have for the session.

Thank you for considering our request. We look forward to a positive response and an inspiring session.

Principal

Dr.S.R.Sugandhi
PRINCIPAL
K.C.E.SOCIETY'S
COLLEGE OF ENGG.
MANAGEMENT,JALGAON

Outward No CoEM/ADMIN /2025-26/329   Date 14.11.2025

To
Mr.Hitendra Valhe
Director,
Ecrucbot pvt.ltd.

Subject: *Invitation to Deliver a Guest Lecture on "How to Build a Tech Startup: Lessons from an Embedded Entrepreneur"*

Respected Sir,

Greetings from KCES's College of Engineering and Management,Jalgaon(Autonomous Institute)

We are delighted to invite you to deliver a **guest lecture** on the topic *"How to Build a Tech Startup: Lessons from an Embedded Entrepreneur."* The session is part of our ongoing initiative to inspire students and aspiring innovators to explore entrepreneurship in technology and embedded systems.

Your extensive experience and accomplishments in the tech startup ecosystem make you an ideal speaker to share valuable insights on building sustainable ventures, overcoming early-stage challenges, and leveraging embedded technologies for innovation.

The lecture is scheduled to be held on **14 November 2025 at 11.00am**, at **Room No.111, Department of Electronics and computer Engineering, KCES's COEM,Jalgaon.** The audience will include students, and young entrepreneurs eager to learn from your journey.

We would be honored by your presence and look forward to your acceptance of this invitation. Please let us know your availability and any logistical or technical requirements you may have for the session.

Thank you for considering our request. We look forward to a positive response and an inspiring session.

Received 14/11/25

Principal

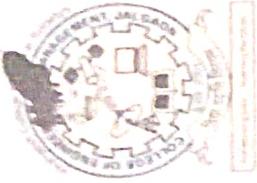Dr.S.R.Sugandhi
PRINCIPAL
K.C.E SOCIETY'S
COLLEGE OF ENGG.
MANAGEMENT,JALGAON

Khandesh College Education Society's

COLLEGE OF ENGINEERING AND MANAGEMENT, JALGAON

An Autonomous Institute

Affiliated to Dr. Babasaheb Ambedkar Technological University, Lonere

NAAC Accredited |UGC 2(F) | Approved by AICTE New Delhi, Government of Maharashtra

Department of E&C Engineering

Guest lecture on

How To Build Tech Startup:
Lessons From Embedded Enterpreneur

Date: 14 NOV. 2025 | Time: 11:00 am To 02.00 PM

- Eminent Speaker -

Mr.Hitendra Valhe | Mr.Bhagyesh Tajane

Founder of Ecrucxbot Tech pvt.ltd.

- Event Coordinator -

Prof Sneha Patil

Venue: Room No 111, KCES's COEM Campus, Jalgaon