



## **aMSa embedded solution**

Imagination...Innovation...Implementation.

**MEMORANDUM OF UNDERSTANDING**  
**THE PRINCIPAL (A)**  
**HIRASUGAR INSTITUTE OF TECHNOLOGY**  
**AND**  
**AMSA EMBEDDED SOLUTIONS (B)**

### DEVELOPMENT CENTER

Amsa Embedded Solution  
Unkal cross stop, shirur park road,  
Baligar building, Vidyanagar  
HUBLI-31

### CONTACT INFORMATION

9535337450,  
8147384188,  
8904595334  
[amsatechno@gmail.com](mailto:amsatechno@gmail.com)

[www.amsaembedded.com](http://www.amsaembedded.com)



## aMSa embedded solution

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### MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (herein after referred to as (MoU) is entered into on this 12/11/2021 between **ECE DEPARTMENT OF HIRASUGAR INSTITUTE OF TECHNOLOGY** and **AMSA EMBEDDED SOLUTIONS** located at vidyanagar Hubli. The scope of the MoU, the roles and responsibilities of the parties.

### BACKGROUND

This MoU is for the benefits of students for IT Industries. This MoU is for the conducting following program for the Electronics and Communication Engineering Branch

- ✓ IoT Research and development lab.
- ✓ Internship Training.
- ✓ Guide for the Projects.
- ✓ Workshop.
- ✓ Seminar on new technology.

[www.amsaembedded.com](http://www.amsaembedded.com)

*Alingadi*

*[Signature]*  
12/11

## 1. BENEFITS TO THE HIRASUGAR INSTITUTE OF TECHNOLOGY

1.1 Opportunity to emerge as one of the competent entities in the academic circles in research and development in the area of Information Technology;

1.2 Opportunity to be recognized by the industry and academic circles as one of the preferred locations for acquiring training and skills development in latest technology and software

1.3 Opportunity to utilize the Program to train students on Latest technology Software products and technologies.

1.4 Opportunity for the faculty and students of **HIRASUGAR INSTITUTE OF TECHNOLOGY** to design world class curriculum capable of delivering the caliber of IT skills required at present and also for the future

### 1.2 BENEFITS FROM AES

1.2.1.Students and faculty will get the technical support on latest technology along with paper presentations

1.2.2.Students and faculty will get the coding level workshop program on latest technologies and workshop program will be on hands on work.

1.2.3.AES will support for student final year academic project with training and development on as per student problem statement and also latest technology.



## MONITORING OF IMPLEMENTATION

A Co-ordination Committee consisting of two faculty members of **HIRASUGAR INSTITUTE OF TECHNOLOGY** and two officers nominated by **AES** will do the planning and monitoring of the implementation of the various aspects of this MoU. There will be an annual review. This review would primarily focus on the curriculum progress, faculty availability and certification.

## GENERAL

1. This MoU may be terminated by either party through a notice of one month. Either party may terminate this MoU if either of the parties is frustrated by reasons beyond its control from going ahead with the implementation of the provision of this MoU. The provisions contained in Clauses 5 ("Intellectual Property Rights"), 6 ("Limitation of Liability") and 7 will survive any such termination.
2. Neither parties will make any presentations pertaining to the other or its business or affairs, without the express written consent and approval of other.
3. It is understood that during the course of this MoU it may be necessary for either party to disclose confidential/proprietary information to the other. The disclosure of any such information or data between the parties shall be made pursuant to an executed Confidentiality Agreement.
4. All costs incurred by a party pursuant to this MoU shall be borne by the party who incurred the costs.

## DURATION OF MOU

1. The duration of the MOU shall be for a Period of 3 years from the effective date.
2. Any clause or article of the MOU may be modified or changed on mutual consent between both parties.


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## SUMMARY:

AES recognizes the significance of the The Principal of **HIRASUGAR INSTITUTE OF TECHNOLOGY** initiative to be the leader in the field of IT related academia in the country. AES proposes to make available the appropriate technology and expertise to develop **HIRASUGAR INSTITUTE OF TECHNOLOGY** position as a leading institute providing high quality IT skilled resources. This Memorandum of Understanding is intended to express the broad understanding of the parties regarding their working with each other to the extent possible for their mutual benefit.

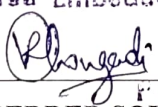
Signature with seal

  
12/11/2021  
\_\_\_\_\_  
**HIRASUGAR INSTITUTE OF TECHNOLOGY**



Date: 12 NOV 2021

Signature with seal

For amsa Embedded Solutions  
  
\_\_\_\_\_  
**AMSA EMBEDDED SOLUTION ,HUBLI**

Date: 12/11/21

CORPORATE6131b8436e2401630648387

[www.amsaembedded.com](http://www.amsaembedded.com)



  
12/11

Date: 10/12/2021

To,  
The Principal,  
Hirasugar Institute of Technology,  
Nidasoshi.

Through : The HOD, ECE Dept.

**Subject: Regarding organizing 3 days Workshop at our Dept.**

Respected Sir,


With reference to the above, we wish to organize Workshop on **"IOT and Arduino IDE"** from 16/12/2021 to 18/12/2021 in association with ISTE students chapter HIT Nidasoshi, by Shri Vinayak R. Dhongadi and team of AMSA Embedded Solutions Hubli. We are organizing this workshop for V semester students as per the discussion held fees per student for this workshop is Rs. 650/-. Kindly permit us to organize the same.

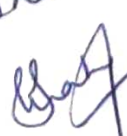
Thanking you.


Your's faithfully

Prof. S. S. Kamate – 

Prof. D.B. Madihalli – 

Prof. S.S. Itannavar – 

permitted  
&  
forwarded  
Head of  
Institution  
  
10/12/2021

  
10/12/21





**S J P N Trust's**  
**Hirasugar Institute of Technology, Nidasoshi**  
*Inculcating Values, Promoting Prosperity*  
 Approved by AICTE, Recognized by Govt. of Karnataka and Affiliated to VTU Belagavi.  
**Accredited at 'A' Grade by NAAC**  
**Programmes Accredited by NBA: CSE, ECE, EEE & ME.**

**E&CE Dept.**

**Activity Report**

**Workshop**

**2021-22(Odd)**

<b>Date of Activity held and Time:</b>	16-12-2021 to 18-12-2021 9am to 5pm
<b>Name of Activity:</b>	Workshop on "IOT and Arduino IDE"
<b>Type of Activity:(cultural/curricular/co-curricular)</b>	Co-curricular
<b>Resource Person/Invitee:</b>	Mr. Vinayak R. Dhongadi
<b>Professional Details of Resource Person:</b>	Co-founder, AMSA Embedded Solutions, Hubli
<b>Year / Class:</b>	5 <sup>th</sup> semester students
<b>No. of Participants:</b>	29
<b>Activity In charge:</b>	Prof. S. S. Kamate Prof. D. B. Madihalli Prof. S. S. Itannavar

**Description of Activity:** Workshop on "IOT and Arduino IDE" was arranged from 16-12-2021 to 18-12-2021. The workshop was arranged by ISTE student chapter in association with IIIC and ECSA, ECE department. Resource persons for the workshop were Mr. Vinayak R. Dhongadi Co-founder, AMSA Embedded Solutions, Hubli Mr. Rajesh P. Chavan R&D Engineer, AMSA Embedded Solutions, Hubli.

The resource person addressed the introduction to Basic Foundation, Data sheet Analyzing, PCB (Printed Circuit Board) Introduction to PCB, Design Rules. PCB CAD Tool, Introduction to CAD tool, Software Installation, Understanding tools available in CAD, Embedded System Design, Embedded Product design flow, Sample Electronics circuits and its design - Theory. AtMega 328P, AVR Architecture, Specification and Feature of AtMega 328P Pin diagram Understanding. Programming basics Data types Variables Functions Scope rules Operators Decision making Loops Arrays String, ARDUINO IDE Software Installation Introduction to Arduino IDE tool Basic Programming with Arduino IDE Interfacing Wire and Wireless Serial, Introduction to Internet of Things, Service model, Introduction to Thing speak, Account activation on Thing speak. Project registration with selected field parameters. Data upload to Things Speak cloud using ESP8266 with ATMEGA328.

CO No.	CO Defined	RBT Level	Relevance POs	Relevance PSOs
1	To develop C- programming with Arduino IDE tool & interfacing of Arduino with LED, LCD, Buzzer, Relay and data converters.	L3	PO1, PO3, PO5, PO9, PO11, PO12	PSO1, PSO2





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E&CE Dept.

Activity Report

Workshop

2021-22(Odd)



Mr. Vinayak R. Dhongadi addressing the basics of IOT and Arduino



Mr. Vinayak R. Dhongadi explaining programming part.





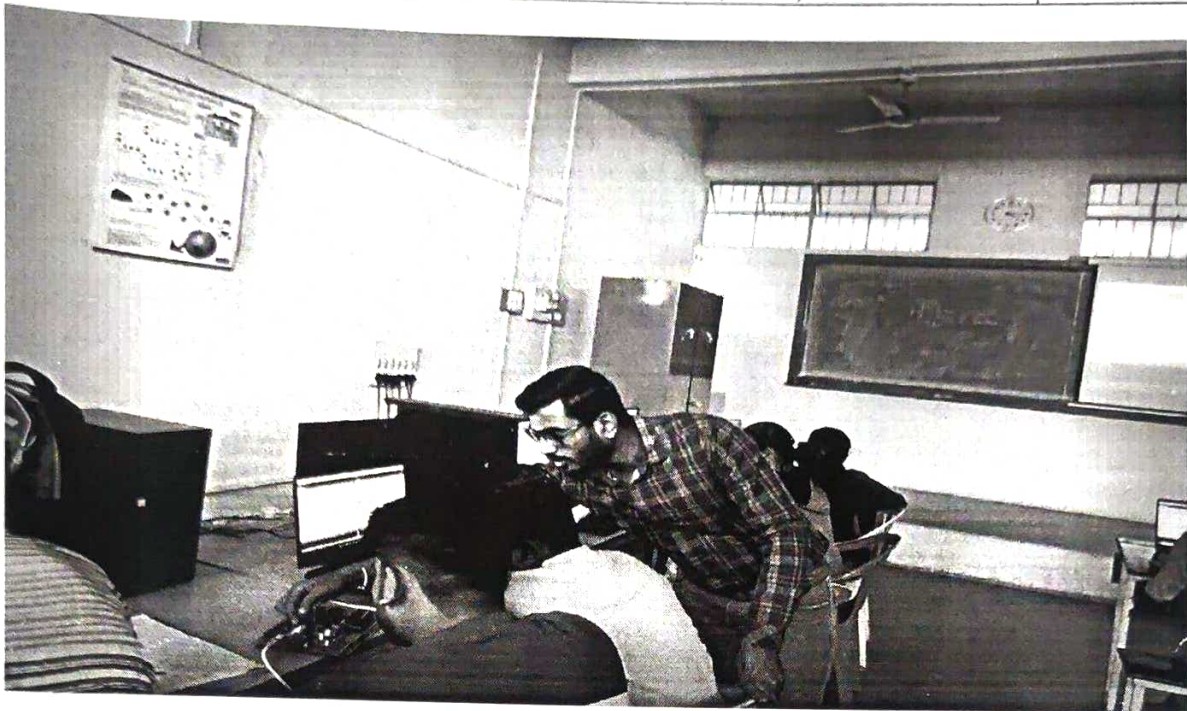
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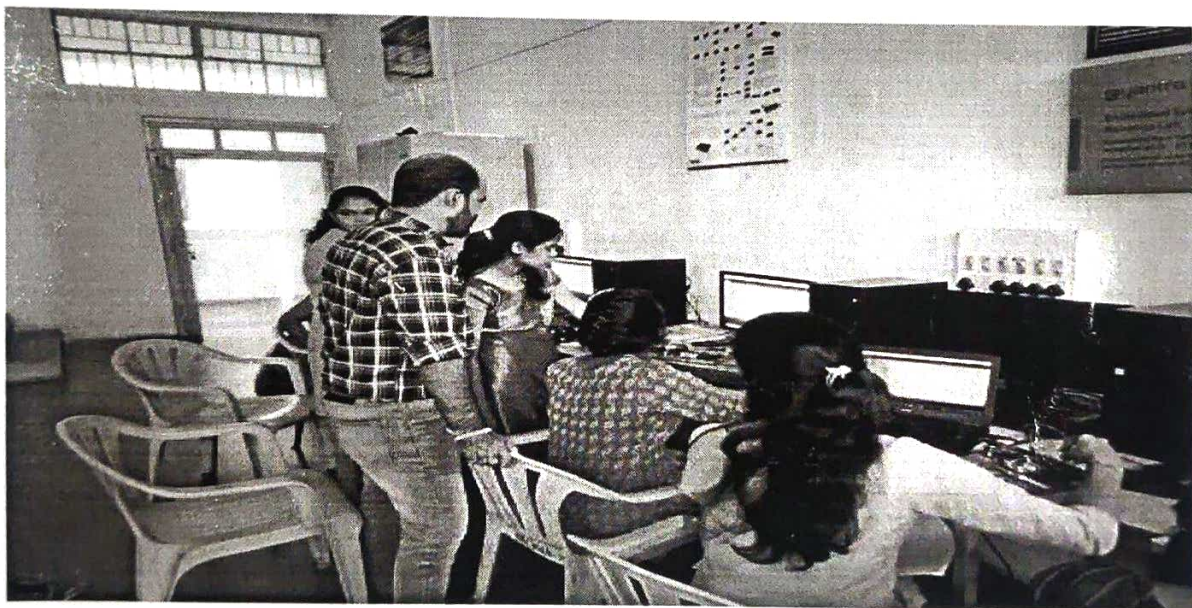
Activity Report

Workshop


2021-22(Odd)



Mr. Rajesh P. Chavan explaining about interfacing of arduino with LED



Mr. Vinayak R. Dhongadi explaining programming part.

  
Coordinators

  
ISTE Coordinator

  
IIIC & ECSA Coordinator

  
HOD  
Electronics & Commn. Engg. Dept.  
HSIT NIDASOSHI





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ECE Dept.

ISTE, IIIC &  
ECSA

Workshop

2021-22 (Odd)

**“Workshop on IOT and Arduino IDE”**

**Attendance Sheet**

Sl. No	USN	Name of the Student	16/12/21 Morning	16/12/21 Evening	17/12/21 Morning	17/12/21 Evening	18/12/21 Morning	18/12/21 Evening
1	2HN19EC001	Akshay Salagare	AB	AB	AB	AB	AB	AB
2	2HN19EC002	Anket Chougala	AB	AB	AB	AB	AB	AB
3	2HN19EC003	Apoorva Magadum	AB	AB	AB	AB	AB	AB
4	2HN19EC004	Bhagyashree Madihalli	AB	AB	AB	AB	AB	AB
5	2HN19EC005	Divya Karigar	AB	AB	AB	AB	AB	AB
6	2HN19EC006	Ganesh Managuli	AB	AB	AB	AB	AB	AB
7	2HN19EC007	Harshita A Goudadi	AB	AB	AB	AB	AB	AB
8	2HN19EC009	Kallappa N. Chikodi	AB	AB	AB	AB	AB	AB
9	2HN19EC010	Laxmi Raju Bedage	AB	AB	AB	AB	AB	AB
10	2HN19EC011	Maruti A Magadum	AB	AB	AB	AB	AB	AB
11	2HN19EC013	Nikita M. Hattarki	AB	AB	AB	AB	AB	AB
12	2HN19EC014	Priyanka Dattawade	AB	AB	AB	AB	AB	AB
13	2HN19EC015	Priyanka S Pujar	AB	AB	AB	AB	AB	AB
14	2HN19EC016	Rakesh Madabhavi	AB	AB	AB	AB	AB	AB
15	2HN19EC017	Ravi R. Marennavar	AB	AB	AB	AB	AB	AB
16	2HN19EC018	Ronit Patil	AB	AB	AB	AB	AB	AB
17	2HN19EC019	Rutuja Shetti	AB	AB	AB	AB	AB	AB
18	2HN19EC020	Sahana Mangaloorkar	AB	AB	AB	AB	AB	AB
19	2HN19EC021	Shraddha Alagouda	AB	AB	AB	AB	AB	AB
20	2HN19EC022	Siddarth R Patil	AB	AB	AB	AB	AB	AB
21	2HN19EC023	Sneha S Patil	AB	AB	AB	AB	AB	AB
22	2HN19EC024	Snehal M Patil	AB	AB	AB	AB	AB	AB
23	2HN19EC026	Soujanya Madabhavi	AB	AB	AB	AB	AB	AB
24	2HN19EC027	Surabhi S. Maradi	AB	AB	AB	AB	AB	AB
25	2HN19EC028	Swapna Jirale	AB	AB	AB	AB	AB	AB
26	2HN19EC029	Swati I Katageri	AB	AB	AB	AB	AB	AB
27	2HN19EC030	Swati S Bhiste	AB	AB	AB	AB	AB	AB
28	2HN20EC400	Hanamanta Soolibhvi	AB	AB	AB	AB	AB	AB
29	2HN20EC401	Vijayakumar P.	AB	AB	AB	AB	AB	AB

Co coordinators

Coordinators ISTE, ECSA & IIIC

**HOD**  
**Electronics & Commn. Engg. Dept.**  
**HSIT NIDASOSHI**

Date: 13/12/2021

To,  
The Principal  
Hirasugar Institute of Technology,  
Nidasoshi.

Sub: Regarding permission to provide accommodation and food to the resource persons.

Respected Sir,

With reference to above cited subject the Department of Electronics and Communication Engineering in Association with Indian Society for Technical Education (ISTE) is organizing three days workshop on "IOT and Arduino IDE" for 5<sup>th</sup> semester students from 16<sup>th</sup> to 18<sup>th</sup> December 2021 by AMSA Embedded Solutions Hubli. Two resource persons are to be accommodated during the workshop with breakfast, lunch and dinner arrangements at our premises. So, we kindly request you to permit us to arrange the same.

I hope you will do the needful in this regard.

Thanking You Sir,

*Permitted.  
Mr. Ninganur  
✓ pl provide  
14/12*

*[Signature]*  
**HOD**  
Electronics & Comm. Engg. Dept.  
HSIT NIDASOSHI  
*13/12* *[Signature]*





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ECE Dept.  
ISTE, IIIC &  
ECSA  
Workshop  
2021-22 (Odd)

## Workshop on "IOT and Arduino IDE"

### Inaugural Session


Date: 16.12.2021 Venue: V Sem class room, H.I.T., Nidasoshi Time: 10:00am-10:35am

1	Welcome Song		Miss Swati Bhiste	10:00-10:05 hrs
	Welcome Speech	:	Miss Divya Karigar	10:05-10:10 hrs
2	Flower Presentation to dignitaries by Mr. Maruti Magadum			10:05-10:10 hrs
3	Introduction of Resource person	:	Mr. Rakesh Madabhavi	10:15-10:20hrs
4	Speech by Guest	:	Mr. Vinayak R. Dhongadi, Cofounder, aMSA Embedded Solutions, Hubli	10:20-10:25 hrs
5	Address By HOD	:	Prof. S. S. Kamate	10:25-10:30 hrs
6	Presidential address	:	Dr. S. C. Kamate	10.30-10.35 hrs
7	Vote of Thanks: Miss Surabhi Maradi			10.35-10.40 hrs
8	Programme Anchors: 1. Miss Nikita M. Hattaraki 2. Miss Apoorva Magadum			

  
Coordinators

  
Coordinator ECSA & IIIC

  
HOD  
Electronics & Comm. Engg. Dept.  
HSIT NIDASOSHI

	<p style="text-align: center;"><b>S J P N Trust's</b>  <b>Hirasugar Institute of Technology, Nidasoshi</b>  <i>Inculcating Values, Promoting Prosperity</i>          Approved by AICTE, Recognized by Govt. of Karnataka and Affiliated to VTU Belagavi.  <b>Accredited at 'A' Grade by NAAC</b>  <b>Programmes Accredited by NBA: CSE, ECE, EEE &amp; ME.</b></p>	ECE Dept.
		ISTE, IIIC & ECSA
		Workshop
		2021-22 (Odd)

## Workshop on "IOT and Arduino IDE"


### Valedictory Function

**Date: 18.12.2021 Venue: V sem class room, D211, H.I.T., Nidasoshi Time: 4:00pm-4:35pm**

1	Welcome Speech	:	Miss Bhagyashree Madihalli	4.00-4:05 hrs
2	Flower Presentation to dignitaries by Mr. Akshay Salagare			4:05-4:10 hrs
3	Feedback	:	1) Mr. Ronit Patil 2) Mr. Harshita Goudadi	4:10-4:20 hrs
4	Certificate Distribution	:	By Resource Person Mr. Vinayak R. Dhongadi, Cofounder, aMSA Embedded Solutions, Hubli	4:20-4:25 hrs
5	Address by HOD	:	Prof. S. B. Akkole	4.25-4.30 hrs
6	Vote of Thanks: Miss. Sahana M.			4.30-4.35 hrs
7	Programme Anchors: 1. Miss Priyanka Pujar 2. Miss Swapna Jirale			

  
Coordinators

  
Coordinator ECSA & IIIC

  
HOD  
HOD  
Electronics & Comm. Engg. Dept.  
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**ECE. Dept**  
**STUDENT LIST**  
**2021-22**  
**ODD SEM**

**Workshop on IOT**

Strength: 30

**B.E.V-SEM List (2018 Scheme)**

ROLL NO.	USN	NAME OF THE STUDENT	Amount (Rs.)	Sign
1	2HN19EC001	AKSHAY SALAGARE	650/-	
2	2HN19EC002	ANKET CHOUGALA	650/-	
3	2HN19EC003	APOORVA MAGADUM	650/-	
4	2HN19EC004	BHAGYASHREE D MADIHALLI	650/-	
5	2HN19EC005	DIVYA KARIGAR	650/-	
6	2HN19EC006	GANESH MANAGULI	650/-	
7	2HN19EC007	HARSHITA A GOUDADI	650/-	
8	2HN19EC008	ISMAIL I PATHAN	AB	
9	2HN19EC009	KALLAPPA NINGAPPA CHIKODI	650/-	
10	2HN19EC010	LAXMI RAJU BEDAGE	650/-	
11	2HN19EC011	MARUTI A MAGADUM	650/-	
12	2HN19EC013	NIKITA MAHANTESH HATTARKI	650/-	
13	2HN19EC014	PRIYANKA S DATTAWADE	650/-	
14	2HN19EC015	PRIYANKA S PUJAR	650/-	
15	2HN19EC016	RAKESH SIDARAY MADABHAVI	650/-	
16	2HN19EC017	RAVI R MARENNAVAR	650/-	
17	2HN19EC018	RONIT PATIL	650/-	
18	2HN19EC019	RUTUJA SHETTI	650/-	
19	2HN19EC020	SAHANA P MANGALOORKAR	650/-	
20	2HN19EC021	SHRADDHA ALAGOUDA	650/-	
21	2HN19EC022	SIDDARTH R PATIL	650/-	
22	2HN19EC023	SNEHA S PATIL	650/-	
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29	2HN20EC400	HANAMANTA SOOLIBHVI	650/-	
30	2HN20EC401	VIJAYAKUMAR N POLICEPATIL	650/-	

Co-ordinators:





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ECE.Dept

ECSA

Fresher's Day

Odd-21-22

Date: 26/10/2021

To,  
The Principal,  
H.I.T.Nidasoshi.

Through  
H.O.D.,  
ECE Dept.,  
H.I.T.Nidasoshi

Sub: Seeking permission to organize "Fresher's Day" to Second year (3<sup>rd</sup> Sem) students.

Respected sir,

With reference to the above subject, we are here by requesting you to grant the permission for department "Fresher's Day" function to be held on 12/11/21 & permit us to utilize an approximate amount of Rs:5000/- from ECSA Account for the above said function.

Please do the needful and oblige.

Thanking you,

*Forwarded to Principal  
for kind approval*

*[Signature]*  
26/10/21  
HOD

Electronics & Comm. Engg. Dept.  
HSIT NIDASOSHI

Yours faithfully

*[Signature]* D.M. Kumbhar  
(ECSA Coordinator)

*Permitted*

*26/10*