ETHNOTECH ACADEMIC SOLUTIONS PVT LTD

Proposal

For

Industry Institute Outreach Programme (IIOP)

& Related Activities

Submitted to

Honorable Principal

JAIN INSTITUTE OF TECHNOLOGY

KARNATAKA, India

By

Sri. Abhilash Kashyap, Program Manager

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Bangalore, Karnataka - 560055

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To,

PRINCIPAL: JAIN INSTITUTE OF TECHNOLOGY

DAVANAGERE, KARNATAKA: 577003

Dear Sir/Madam,

Sub: Proposal to establish Industry 4.0 labs at JAIN INSTITUTE OF TECHNOLOGY

Warm Greetings from Ethnotech Academy. I hope this document finds you in good health and High spirits. The reason for this communication is the prospect of establishing a Centre of excellence at your reputed Institution under the IIOP project. IIOP is the abbreviation for Industry Institute outreach program. IIOP was envisioned to ensure that our Institutions are equipped to adopt and succeed in the new technological revolution famously known as Industry 4.0. Industry 4.0 is the new revolution encompassing technologies such as Block Chain, Automation, Virtualization, Data analytics etc. IIOP provides Institutions with state-of-the-art Infrastructure, Licensed technology software, Affiliations to global corporates such as Microsoft, Amazon, VMware, Cisco, IBM, Palo Alto and Tally. The best part being all these facilities and infrastructure is provided to AICTE approved institutions at no cost.

The Main Challenges faced by academic Institutions to implement these programs are follows:

1. **No direct collaboration with Industry leaders for technology transfer and collaborations.**

   Solution: Ethnotech will facilitate the process of MOU signing between the Institution and the corporates. The affiliation cost and Software License cost will be completely paid by Ethnotech.

2. **Lack/Absence of Industry prescribed Infrastructure in the campus to conduct these programs.**

   Solution: Ethnotech will establish state of the art Technology labs for the purpose of affiliation, training and certification.

3. **Lack of experts in the Institution campus to conduct these programs.**

   <u>Solution:</u> Industry certified Instructors will visit the Institution to conduct the trainings and certification. Even the faculty members will be trained every semester on latest cutting-Edge Technologies.

4. **High Cost of Global certifications.**

   <u>Solution:</u> Global Certifications such as CCNA, AWS, VMWare and others are exorbitantly expensive ranging anywhere between 18,000 to 40,000 INR. To ensure that students don't bear the brunt of financial burden, Ethnotech has subsidized the cost of training and certification by 80%.

5. **Gap in connecting trained and certified students with corporates looking to hire.**

   <u>Solution:</u> Ethnotech will give complete access to IIOP Learning management system cum Placement portal for all the students participating in the program. The portal will directly connect the Industries and students for Internship, Project and placement purpose.

The most important part of this exercise is that students and teachers undergoing these training will be certified directly by the corporates through globally recognized certifications. Detailed information about the program is attached along with this cover letter for your kind reference. We are confident that you will join us in effective implementation of this wonderful initiative. Hoping so,

<u>Yours in Education.</u>

Dr. Kiran.K. Rajanna
Chairman- Ethnotech Group.
Bangalore.

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1 Industry Institute Outreach program (IIOP)

Industry Institute outreach Program is an initiative to introduce and familiarize educational institutions with the new Industry revolution famously known as Industry 4.0.

As we are all aware Industry 4.0 is a revolution in the technology domain. The technologies classified under Industry 4.0 are expected to generate 71% of all the new jobs in the next decade. Keeping this in mind, it is very important to ensure thatour educational Institutions, students and faculties in particular are introduced to these technologies in a practical manner. However, most of our institutions do not have the infrastructure or the expertise in these technologies since most of these technologies are relatively new and quite expensive to adopt and implement.

Keeping these factors in mind, IIOP was envisioned to provide state of the art technology infrastructure to Institutions as well as experts to train faculty andstudents. The best part about the program is that participating institutions will collaborate with corporates that are leading in the technologies as academic partners. Not only this, the institution need not spend any money during any time ofthe MOU for any of these services which includes and not limited to:

1. State of the art technology labs. (Explained in detail in section 2.1)
2. Affiliations to 8 global leading corporates.
3. All the required licensed software's on these technologies.
4. Completely free training and certification to faculties on these technologies.
5. Training at very nominal cost to students and completely free globalcertification to students at no extra cost.
6. Full access to IIOP LMS (Learning Management system) which provides students with all required content as well as connect students to companies across the country for placements. (Explained in detail in section 1.5)

1.1 Technology & Affiliations

Cloud Computing	**aws** academy ▲ Microsoft Azure
Virtualization	**vm**ware IT ACADEMY
Artificial Intelligence, Data Science Block Chain and analytics	IBM
Automation	FESTO LN LUCAS-NUELLE
Web Services	**GoDaddy** Academy
Design and Modelling	AUTODESK Bentley
Internet of Things	IBM cisco Networking Academy

2 <u>Institution Benefits</u>

2.1   Global Affiliations

In the modern era, it is very important that the institutions of higher education collaborate with corporates who are leaders in the respective technologies, this practice leads to preparing the students and faculty for ever changing demands of the market, keeping this in mind. Through the IIOP the participating institutions will directly sign MoUs with the corporates as explained in the table 1.1 above.

2.2   Centre of Excellence

In order to implement the latest cutting-edge Technology programs, it is necessary to have high performance computing labs. Through IIOP the participating institutions will be sponsored technology labs with the required infrastructure to create a state-of-the-Art facility.

2.3   Faculty Development Programs & Certification

An institution is only as good as its faculties. Ensuring that our faculties are equipped with the knowledge to impart these technology lessons is the main purpose of the IIOP program. During the tenure of this project the faculties will be trained directly by the industry experts every semester for 3 years at the sametime the complete certificate cost of the faculties will be sponsored through the IIOP project at no cost.

2.4   Software Licenses

Through IIOP the participating institution will be provided with all the required paid software licenses for the purpose of training, research and development. The cost of the software will be paid by Ethnotech Academy.

2.5   Learning Management System

The IIOP Learning management system (LMS) is one stop solution to all the needsof the students and faculties. Through the LMS students will be able to access free training, seminars, internship and projects. as and when students complete Global certifications, it directly communicated to more than 300 companies, we plan to make a part of job portal. Through the LMS the students will be able to create a video resume, download a professional resume in a click a button and also apply to hundreds of jobs. There is no cost involved in any of these services.

3 Student Benefits

3.1 Global Certification

As we are all well aware certificates from global corporates provides students with the skills and recognition required to obtain to succeed, however we are also aware that these training and certification are quite expensive and not within thereach of many students, Through IIOP we are ensuring that money is not a hurdlefor the students to get trained and certified form these global corporates.

3.2 Technology Labs & Examination Centre

In order for students to learn and succeed in their field of interest, a supporting eco system is very necessary. Through IIOP students will have full timeand unconditional access to State of Art technology labs will all the necessary software's and equipment's required for Training, research and development. The best part about the program is that, the students need not search for an authorized training center after completion of the training program, every participating institution will be affiliated as an Authorized Training center to conduct global certification. this means students can take up their practice test and certificationexams in the comfort of their own institutions.

3.3 IIOP LMS

Through the IIOP Learning management System (LMS) students can create their own profiles by updating their information on the portal, The LMS also gives access to students about free seminars, free training, internship and industry project available across the country. through the LMS students can apply for jobsin a click of a button.

4 Ethnotech Contribution to the College

WORKSTATIONS

TABLES

CHAIRS

AIR CONDITIONER

CLASSROOM INTERIOR

PROJECTOR

CCTV
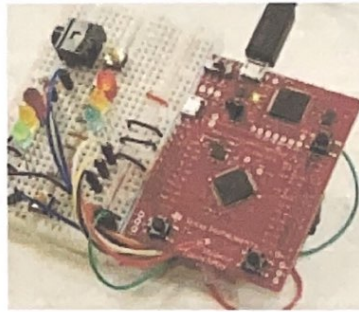
4.1 Paid Software Licenses Packages

Affiliation fees and Annual affiliation renewal fees of ₹ 4,80,000 + GST to be paid by Ethnotech Academy on behalf of the institution.

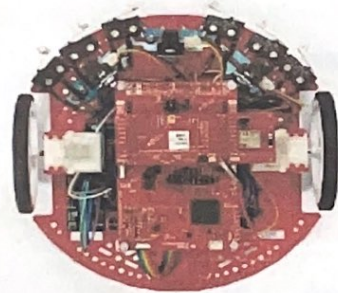# 5. Equipment's used for Training

5.1 Texas Instrument Kits

Ti-ARM Board

TI - Launch pad

TI - Robotics Kit

TI - Robotic Kit 2

Speech Processing Development System

- OMAP-L137/TMS320C6747 Floating Point Starter Kit with multi channel Daughter Card.
- Lab view compatible Signal Ranger MK3 16- Channel DSP.
- TMS320C6748 DSP Development Kit (LCDK).
- TMS320C6713 DSP Starter Kit (DSK)

Vedio and Image Processing Development System

- DM6437 Digital Video Development Platform (DVDP).
- TMS320C6678LE Evaluation Module.
- Jacinto 6 Infotainment Evaluation Module Kit.
- TMS320C6748 DSP Development Kit (LCDK).

Wireless Research

- Wireless Open Access Research Platform (WARP)

Analog Design Kit

Sl no	Module	quantity
1	Analog Lab in Box with user manual and TI Breadboard	1
2	Analog System Design Kit with Accessories	1

Signal Processing Kit

Sl no	Module	quantity
1	TMS320C6748 DSP Development Kit with XDS100 v3 JTAG Emulator	1
2	OMAP L137 with Multichannel daughter card	1

Audio, Image and Video Kit

Sl no	Module	quantity
1	DM6437 DVDP with Camera and TFT Screen	1

Sl no	Module	quantity
	Robotics System with Brain Wave Technology Kit	
	Robotics System Lab Kit	1
	Senzband with Mind Sync and Memory App	1
1	RSLK compatible sensors and Bluetooth Module	1
	PIR sensor, HM-10 Bluetooth module, Ultrasonic sensor, Servo motor, Moisture sensor, Buzzer, Dedicated Edgate Apps for RSLK	1
	Advance Embedded System Design and IOT Kit	
	CrossWorks for ARM Single License	1
	MSP430F5529 USB Evaluation Launchpad, MSP432P401R Launch Pad	5
	Simple Link CC3100 WIFI Booster pack	10
	Simple Link CC3220SF WIFI Launchpad, Sensor Hub Booster pack, TM4C1294 Connected Launchpad™ Evaluation Kit	3
2	TIVA C Series Launchpad	5
	Simple Link Wi-Fi CC3200 Launchpad	4
	Particle Mesh Wi-Fi Bundle, Grove Starter Kit for Particle Mesh, BOOSTXL-CC2650MA, Educational Booster Pack MKII	2
	Sensors	
3	HR202 Soil Humidity Sensor, Water Level Sensor, Alcohol Sensor, Temperature Sensor,3-axis Accelerometer	1set
	Softwares	
4	Code Composer Studio, Energia IDE	1

5.2 CISCO Training Kits

CISCO ROUTER

CISCO SWITCH

CISCO ROUTER

CISCO RACK
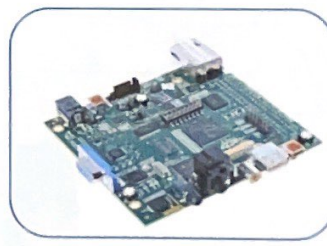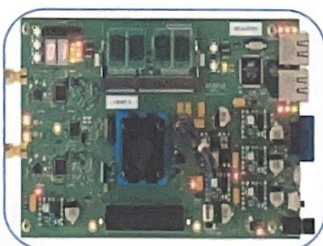
5.3 IBM SERVER

Product Name	Product Description	unit quantity
8335-GTG	Server 1 :8335-GTG	1
	Primary OS - Linux	1
	New RedHat licenses Core Counter	40
	AC power supply 2200 watts (227 V)	2
	open power non virtualized Configuration	1
	Air cooled 16 GB 5xM2 FF 300W Nvidia Volta GPU	2
	Rack mound slide Rail Kit	1
	1 TB 7.2 k rpm 5 xx SATA sff -4 Disk Drive	2
	16 GB DDR4 2666 RDIMM	16
	20 CORE 2.6 GHz (2.8 GHz TURBO) POWER9	2
	POWER CORD 4. 3 M (14.10 FOOT) DRAWER TO IBM PDU 2	2
	S&H- A	1
	standalone USD DVD DRIVE W/ CABLE	1
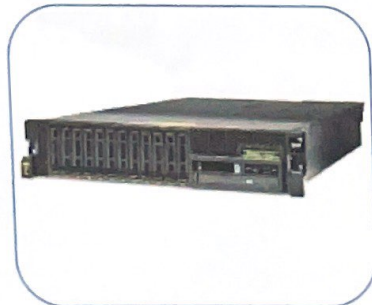
5.4 FESTO Training Equipment's

Hydraulic Training Package

Parker...

FESTO NEUMATICA

FESTO PLC

FESTO Electric...

FESTO Training PLC Kit
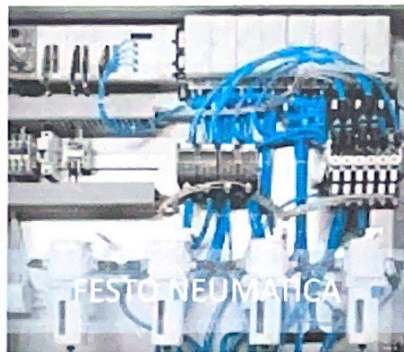
6 Programme Execution & Implementation

1 • IIOP Proposal

2 • Memorandum of Understanding between Ethnotech academy and the Institution

3 • Memorandum of Understanding between Institution and participating corporates.

4 • Registration Drive through Seminars & Motivation to Students.

5 • Centre of Excellence setup and Inauguration.

6 • Training and certification
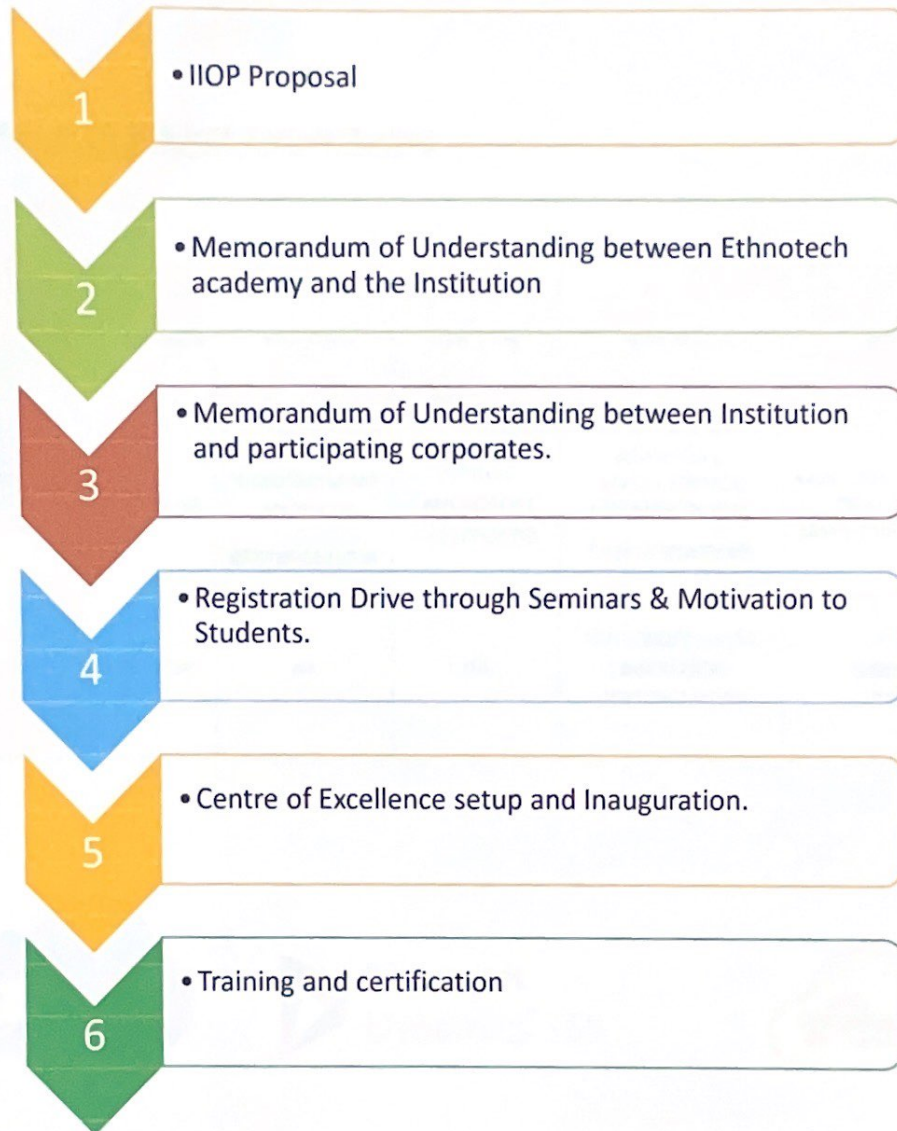
Annexure-A: Program wise Details

COMPUTER SCIENCE ENGINEERING

	YEAR /SEM	3RD SEM	4TH SEM	5TH SEM	6TH SEM
COMPUTER SCIENCE ENGINEERING	2ND YEAR	WEB PROGRAMMING (MICRSOFT CERTIFICATION)	PYTHON (MICROSOFT CERTIFICATE)	ARTIFICIAL INTELLIGENCE (PEARSON VUE CERTIFICATION)	AWS CERTIFIED CLOUD PRACTITIONER (AWS CERTIFICATION)
	3RD YEAR	NA	NA	MICROSOFT AZURE (MICROSOFT CERTIFICATION)	PYTHON (MICROSOFT CERTIFICATE)

INFORMATION SCIENCE ENGINEERING

&

INFORMATION TECHNNOLOGY

	YEAR /SEM	3RD SEM	4TH SEM	5TH SEM	6TH SEM
INFORMATION SCIENCE ENGINEERING / INFORMATION TECHNOLOGY	2ND YEAR	WEB PROGRAMMING (MICRSOFT CERTIFICATION)	PYTHON (MICROSOFT CERTIFICATE)	ARTIFICIAL INTELLIGENCE (PEARSON VUE CERTIFICATION)	MICROSOFT AZURE (MICROSOFT CERTIFICATION)
	3RD YEAR	NA	NA	PYTHON (MICROSOFT CERTIFICATION)	MICROSOFT AZURE (MICROSOFT CERTIFICATION)
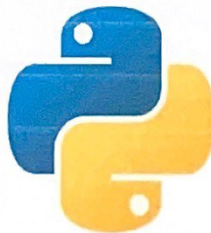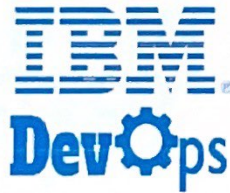
ELECTRONICS AND COMMUNICATION ENGINEERING

	YEAR /SEM	3RD SEM	4TH SEM	5TH SEM	6TH SEM
ELECTRONICS AND COMMUNICATION ENGINEERING	2ND YEAR	CCNA (R&S) M1 (CISCO)	CCNA (R&S) M2 (CISCO)	CCNA (R&S) M3 (CISCO)	CCNA (R&S) M4 (CISCO)
	3RD YEAR	NA	NA	INTERNET OF THINGS (TI CERTIFICATION)	NETWORK VIRTUALIZATION (VMWARE)

MECHANICAL ENGINEERING

YEAR /SEM	3RD SEM	4TH SEM	5TH SEM	6TH SEM
2ND YEAR	AUTODESK INVENTOR (AUTODESK)	PMI (PMI CERTIFICATION)	HYDRAULICS, PNEUMATICS,PLC LEVEL-1	HYDRAULICS, PNEUMATICS,PLC LEVEL-2
3RD YEAR	NA	NA	AUTODESK INVENTOR (AUTODESK)	PMI (PMI CERTIFICATION)

(Row label spanning both data rows: **MECHANICAL ENGINEERING**)

Project Management Institute.

LN® LUCAS-NUELLE

FESTO

CIVIL ENGINEERING

	YEAR /SEM	3RD SEM	4TH SEM	5TH SEM	6TH SEM
CIVIL ENGINEERING	2ND YEAR	AUTODESK 3DS MAX (AUTODESK)	REVIT (AUTODESK)	AUTODESK MAYA (AUTODESK)	PMI (PMI CERTIFICATION)
	3RD YEAR	NA	NA	REVIT (AUTODESK)	PMI (PMI CERTIFICATION)

AUTODESK 3DS MAX

AUTODESK MAYA

AUTODESK REVIT

PM Project Management Institute

MASTER OF BUSINESS ADMINISTRATION

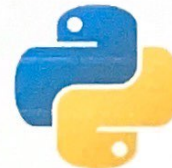|	YEAR /SEM	1ST SEM	2ND SEM	3RD SEM	4TH SEM
MBA	1ST YEAR	MICROSOFT DYNAMICS 365 - CRM (MICROSOFT)	ARTIFICIAL INTELLIGENCE (PEARSON VUE CERTIFICATION)	DATA SCIENTIST (IBM)	BLOCK CHAIN (IBM)
	2ND YEAR	NA	NA	MICROSOFT DYNAMICS 365 - CRM (MICROSOFT)	PMI (PMI CERTIFICATION)

Microsoft Dynamics 365

IBM

Project Management Institute.

BACHELOR OF SCIENCE (COMPUTER SCIENCE)

&

BACHELOR OF COMPUTER APPLICATIONS

	YEAR /SEM	1ST SEM	2ND SEM	3RD SEM	4TH SEM	5TH SEM
BSc(CS) / BCA	1ST YEAR	JAVA (MICROSOFT CERTIFICATION)	WEB PROGRAMMING (MICRSOFT CERTIFICATION)	PYTHON (MICROSOFT CERTIFICATE)	MICROSOFT AZURE (MICROSOFT CERTIFICATION)	CYBER SECURITY (CISCO)
	2ND YEAR	NA	NA	PYTHON (MICROSOFT CERTIFICATION)	MICROSOFT AZURE (MICROSOFT CERTIFICATION)	CYBER SECURITY (CISCO)
	3RD YEAR	NA	NA	NA	NA	PYTHON (MICROSOFT CERTIFICATION)

BACHELOR OF SCIENCE (ELECTRONICS)

	YEAR /SEM	1ST SEM	2ND SEM	3RD SEM	4TH SEM	5TH SEM
BSc ELECTRONICS	1ST YEAR	CCNA (R&S) M1 (CISCO)	CCNA (R&S) M2 (CISCO)	CCNA (R&S) M3 (CISCO)	CCNA (R&S) M4 (CISCO)	CYBER SECURITY (CISCO)
	2ND YEAR	NA	NA	PYTHON (MICROSOFT CERTIFICATION)	INTERNET OF THINGS (TI CERTIFICATION)	CYBER SECURITY (CISCO)
	3RD YEAR	NA	NA	NA	NA	PYTHON (MICROSOFT CERTIFICATION)