कार्यालय आयुक्त, तकनीकी शिक्षा, मध्यप्रदेश
सतपुड़ा भवन, चौथी मंजिल, भोपाल-462004
दूरभाष 0755-2576751, ई-मेल आईडी:- ctemp.bpl@mp.gov.in/dte5.planning@mp.gov.in

क्रमांक/यो/05/एम/2023/678 भोपाल, दिनांक :27/12/2023

प्रति,

संचालक/प्राचार्य,

1. समस्त स्वशासी/अनुदान प्राप्त/RGPV के घटक इंजीनियरिंग महाविद्यालय मध्यप्रदेश
2. निजी इंजीनियरिंग महाविद्यालय मध्यप्रदेश _____

विषय:- SANKALP योजना के अंतर्गत आई.आई.टी.दिल्ली-एफआईटीटी के ऑनलाईन कोर्सेज के संबंध में दिनांक 28.12.2023 को प्रात: 11:00 बजे ऑनलाईन बेबिनार में उपस्थित रहने एवं छात्रों को सूचित करने बाबत्।

संदर्भ:- 1. संचालनालयीन पत्र क्रमांक/यो/05/एम/2023/649, भोपाल, दिनांक 22/11/2023.
2. संचालनालयीन पत्र क्रमांक/यो/05/एम/2023/657, भोपाल, दिनांक 05/12/2023

***

आई.आई.टी. दिल्ली-एफआईटीटी और मध्यप्रदेश राज्य कौशल विकास एवं रोजगार बोर्ड के मध्य हस्ताक्षरित एमओयू के अनुसार राज्य के इंजीनियरिंग महाविद्यालयों के विद्यार्थियों को Artificial Intelligence, Blockchain, 5G IoT एवं Computer Vision (CV) के क्षेत्र में प्रस्तावित ऑनलाइन प्रशिक्षण कार्यक्रम हेतु दिनांक 28.12.2023 को प्रात: 11:00 बजे से दोपहर 12:00 बजे तक ऑनलाईन बेबिनार का आयोजन आई.आई.टी. दिल्ली की टीम द्वारा किया गया है। जिसमें आई.आई.टी. दिल्ली की टीम द्वारा उपरोक्त प्रस्तावित ऑनलाइन प्रशिक्षण कार्यक्रम के संबंध में छात्रों एवं फैकल्टी को जानकारी प्रदान की जावेगी। कृपया निम्नांकित लिंक https://teams.microsoft.com/l/meetup-join/19%3ameeting_NzhmNGUwZDktZDg2ZC00YjZjLTk5ZjAtOWJiMDcxNGExZmE2%40thread.v2/0?context=%7b%22Tid%22%3a%22624d5c4b-45c5-4122-8cd0-44f0f84e945d%22%2c%22Oid%22%3a%22a4878570-123c-485d-8722-eac6879d6e1d%22%7d को इच्छुक छात्रों एवं फैकल्टी के मध्य साझा करें जिससे आई.आई.टी. दिल्ली-एफआईटीटी के कोर्सेस के संबंध में छात्र जानकारी प्राप्त कर लाभांवित हो सकें।

उपरोक्त प्रशिक्षण कार्यक्रम हेतु विभिन्न इंजीनियरिंग महाविद्यालयों से प्राप्त विद्यार्थियों की सूची के उपरांत वर्तमान में निम्न तालिका अनुसार प्रशिक्षण हेतु सीट्स उपलब्ध हैं:-

S.No.	Course Name	Available Seats
1	Blockchain Builder	593
2	5G IoT CoE Builder	671
3	Computer Vision (CV) Builder	904

27/12/23
(डॉ. मोहन सेन)
अतिरिक्त संचालक एवं कार्यालय प्रमुख
तकनीकी शिक्षा, मध्यप्रदेश

पृ क्रमांक/यो/05/एम/2023/679 /भोपाल, दिनांक : 27/12/2023

प्रतिलिपि:- निम्नांकित की ओर सुचनार्थ एवं आवश्यक कार्यवाही हेतु अग्रेषित :-

1. निज सहायक, अपर मुख्य सचिव, म.प्र. शासन, तकनीकी शिक्षा, कौशल विकास एवं रोजगार विभाग, मंत्रालय, वल्लभ भवन, भोपाल की ओर सूचनार्थ
2. निज सहायक, आयुक्त तकनीकी शिक्षा, मध्यप्रदेश भोपाल की ओर सूचनार्थ प्रेषित।
3. निज सहायक, सीईओ, मध्यप्रेदश राज्य कौशल विकास एवं रोजगार बोर्ड भोपाल म.प्र. की ओर सूचनार्थ।
4. डायरेक्टर, आई.आई.टी. दिल्ली की ओर सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।
5. कुलसचिव, रा.गां.प्रौ.वि.वि. भोपाल की ओर इस आशय के साथ इस पत्र को विश्वविद्यालय की बेबसाईट पर अपलोड करना सुनिश्चित करें।

27/12/22
अतिरिक्त संचालक एवं कार्यालय प्रमुख
तकनीकी शिक्षा, मध्यप्रदेश

Last Date extended till 01/12/2023

(Revised)

कार्यालय आयुक्त, तकनीकी शिक्षा, मध्यप्रदेश
सतपुड़ा भवन, चौथी मंजिल, भोपाल-462004
दूरभाष 0755-2576751, ई-मेल आईडी:- ctemp.bpl@mp.gov.in/dte5.planning@mp.gov.in

क्रमांक/यो/05/एम/2023/ 649 भोपाल, दिनांक 22/11/2023

प्रति,

प्राचार्य,

समस्त स्वशासी/अनुदान प्राप्त/RGPV के घटक इंजीनियरिंग महाविद्यालय
समस्त निजी इंजीनियरिंग महाविद्यालय मध्यप्रदेश

विषयः- आई.आई.टी. दिल्ली द्वारा संचालित ऑनलाईन कोर्सेज हेतु बी.टेक. तृतीय एवं चतुर्थ वर्ष के छात्र-छात्राओं के रजिस्ट्रेशन बाबत।

***

आई.आई.टी. दिल्ली और मध्यप्रदेश राज्य कौशल विकास एवं रोजगार बोर्ड के मध्य राज्य के इंजीनियरिंग महाविद्यालय जबलपुर में आर्टिफिशियल इंटेलीजेंस और इंटरनेट ऑफ थिंग्स, इंजीनियरिंग महाविद्यालय उज्जैन में ब्लॉकचेन टेक्नोलॉजी एवं महिला पॉलीटेक्निक भोपाल में कम्प्यूटर विजन(एआर/व्हीआर) के क्षेत्र में 'सेंटर ऑफ एक्सीलेंस' स्थापित करने एवं इनसे जुडे क्षेत्रों में ऑनलाइन प्रशिक्षण प्रदान करने हेतु एमओयू साइन किया गया है। तालिका में उल्लेखित 04 क्षेत्रों में आई.आई.टी. दिल्ली द्वारा ऑनलाइन प्रशिक्षण दिया जायेगा। प्रशिक्षण का विवरण संलग्न है।

S.No.	Course Name	Course Duration	Teaching Hours	Lab Hours	Batch Size
1	Artificial Intelligence Builder	2 Months	40+	40+	1000
2	Blockchain Builder	2 Months	40+	40+	1000
3	5G IoT CoE Builder	2 Months	40+	40+	1000
4	Computer Vision (CV) Builder	2 Months	40+	40+	1000

इस एमओयू के अनुसार राज्य के छात्र-छात्राओं को प्रत्येक कोर्स के लिये रूपये 1000/- (रूपये एक हजार मात्र) एडमिशन डिपोजिट के रूप में संस्था के माध्यम से स्किल बोर्ड में जमा करने होगें। उक्त प्रशिक्षण को सफलतापूर्वक पूर्ण करने पर एडमिशन डिपोजिट की राशि छात्र को वापिस कर दी जावेगी। प्रत्येक संस्था इस एडमिशन डिपोजिट राशि को सीधे तालिका में दिये गये विवरण अनुसार राज्य के स्किल बोर्ड को इलेक्ट्रानिकली ट्रांसफर करेगें एवं इसकी रसीद की स्कैन इमेज ईमेलः- ceo.mpssdegb@mp.gov.in और नीचे उल्लेखित पते पर उपलब्ध कराना सुनिश्चित करेंगें।

S.No.	Institutions	Email	A/C Details where admission fee @1,000/- per student will be deposited
1	Govt. Engineering Colleges	dte5.planning@mp.gov.in	Chief Executive Officer (CEO), Madhya Pradesh State Skill Development & Employment Generation Board (MPSSDEGB) Gas ITI Building Govindpura, Bhopal Account No. 31458991806 IFSC Code. SBIN0004823 Email: ceo.mpssdegb@mp.gov.in
2	Govt. Aided Engineering Colleges	dte5.planning@mp.gov.in	
3	UIT RGPV Bhopal/Shivpuri/Jhabua/Shahdol	dte5.planning@mp.gov.in	
4	Private Engineering Colleges (Affiliated to RGPV)	dteplanning@gmail.com	
5	Engineering Colleges Under Higher Education Private Universities	dteplanning@gmail.com	

प्रशिक्षण के उपरांत आई.आई.टी. दिल्ली व बोर्ड द्वारा संयुक्त प्रमाण पत्र दिया जायेगा। प्रत्येक कोर्स के लिये पंजीकृत किये गये छात्र-छात्राओं द्वारा प्रशिक्षण सफलतापूर्वक पूर्ण करने के उपरांत स्किल बोर्ड द्वारा प्रत्येक

(Revised)

संस्था को एडमिशन डिपोजिट की राशि वापिस कर दी जावेगी। इस एमओयू के अंतर्गत आई.आई.टी. दिल्ली को प्रत्येक कोर्स के लिये प्रति छात्र रूपये 18,900/- (रूपये अठारह हजार नौ सौ मात्र) का भुगतान मध्यप्रदेश राज्य कौशल विकास एवं रोजगार निर्माण बोर्ड के द्वारा भारत सरकार की SANKALP स्कीम के अंतर्गत विकलनीय होगा।

उपरोक्त सभी कोर्सेस में स.क्र. 1 से 3 पर अंकित शासकीय क्षेत्र की संस्थाओं के छात्र-छात्राओं को प्राथमिकता दी जावेगी। प्रत्येक कोर्स के लिये शेष बचे स्थानों हेतु निजी इंजीनियरिंग महाविद्यालयों के छात्र-छात्राओं का योग्यता के आधार पर चयन किया जावेगा। प्रथम चरण के प्रशिक्षण हेतु प्रत्येक कोर्स के लिये बैच साइज 1000 होगी।

इस कार्यक्रम हेतु आप अपनी संस्था के तृतीय एवं चतुर्थ वर्ष में अध्ययनरत इच्छुक छात्र-छात्राओं की सूची संलग्न प्रारूप अनुसार Excel Sheet में एडमिशन डिपोजिट राशि (@1000/- प्रति छात्र) की रसीद की स्कैन इमेज के साथ दिनांक 28/11/2023 अपरान्ह 12:30 तक तालिका में उल्लेखित ईमेल पर उपलब्ध कराना सुनिश्चित करें।

अधोहस्ताक्षरकर्ता इस प्रशिक्षण कार्यक्रम के लिये नोडल अधिकारी रहेगें। प्रशिक्षण कार्यक्रम Weekdays पर अपरान्ह 3:00 से 8:00 बजे या Weekend पर अपरान्ह 12:30 से 4:30 बजे का समय निर्धारित किया गया है। छात्र छात्राएं अपनी सुविधा अनुसार समयावधि का चयन कर सकेगें

संलग्न:- 1. छात्र-छात्राओं की सूची हेतु प्रारूप (Excel Sheet में)

2. प्रशिक्षण का विवरण

(अपर मुख्य सचिव महोदय द्वारा अनुमोदित)

22.11.23

Last date extended till 01/12/23

(डॉ. मोहन सेन)
अतिरिक्त संचालक एवं कार्यालय प्रमुख
तकनीकी शिक्षा, मध्यप्रदेश

पृ क्रमांक/यो/05/एम/2023/ 650 /भोपाल, दिनांक : 22/11/2023

प्रतिलिपि:- निम्नांकित की ओर सुचनार्थ एवं आवश्यक कार्यवाही हेतु अग्रेषित :-

1. निज सहायक, अपर मुख्य सचिव, म.प्र. शासन, तकनीकी शिक्षा, कौशल विकास एवं रोजगार विभाग, मंत्रालय, वल्लभ भवन, भोपाल की ओर सूचनार्थ
2. निज सहायक, आयुक्त तकनीकी शिक्षा, मध्यप्रदेश भोपाल की ओर सूचनार्थ प्रेषित।
3. निज सहायक, सीईओ, मध्यप्रेदश राज्य कौशल विकास एवं रोजगार बोर्ड भोपाल म.प्र. की ओर सूचनार्थ।
4. डायरेक्टर, आई.आई.टी. दिल्ली की ओर सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।
5. कुलसचिव, रा.गां.प्रौ.वि.वि. भोपाल की ओर आवश्यक कार्यवाही हेतु प्रेषित।
6. सचिव मध्यप्रदेश निजी विश्वविद्यालय नियामक आयोग को सूचनार्थ एवं समस्त निजी विश्वविद्यालयों को उपरोक्त प्रशिक्षण कार्यक्रम के संबंध में अवगत कराये जाने हेतु प्रेषित।

अतिरिक्त संचालक एवं कार्यालय प्रमुख
तकनीकी शिक्षा, मध्यप्रदेश

D:\2023\IIT Dehli\22_11_2023\Letter IIT Dehli_22_11_2023.docx

कार्यालय आयुक्त, तकनीकी शिक्षा, मध्यप्रदेश
सतपुड़ा भवन, चौथी मंजिल, भोपाल-462004
दूरभाष 0755-2576751, ई-मेल आईडी:- ctemp.bpl@mp.gov.in/dte5.planning@mp.gov.in

क्रमांक/यो/05/एम/2023/ 657 भोपाल, दिनांक :5 /12/2023

प्रति,

संचालक/प्राचार्य,

1. समस्त स्वशासी/अनुदान प्राप्त/RGPV के घटक इंजीनियरिंग महाविद्यालय मध्यप्रदेश
2. निजी इंजीनियरिंग महाविद्यालय मध्यप्रदेश _____

विषय:- आई.आई.टी.दिल्ली-एफआईटीटी के ऑनलाईन कोर्सेज के सुचारू संचालन हेतु महाविद्यालय से फैकल्टी को मेंटर के रूप में नामांकित किये जाने तथा विद्यार्थियों की एडमिशन डिपोजिट राशि जमा करने बाबत्।

संदर्भ:- संचालनालयीन पत्र क्रमांक/यो/05/एम/2023/649, भोपाल, दिनांक 22/11/2023.

***

आई.आई.टी. दिल्ली-एफआईटीटी और मध्यप्रदेश राज्य कौशल विकास एवं रोजगार बोर्ड के मध्य हस्ताक्षरित एमओयू के अनुसार राज्य के इंजीनियरिंग महाविद्यालयों के विद्यार्थियों को Artificial Intelligence, Blockchain, 5G IoT एवं Computer Vision (CV) के क्षेत्र में दिनांक 13 दिसम्बर 2023 से प्रस्तावित ऑनलाइन प्रशिक्षण कार्यक्रम के सुचारू संचालन हेतु महाविद्यालय से 01 फैकल्टी को इस कार्यक्रम हेतु मेंटर नामांकित कर इसकी जानकारी (नाम, पदनाम, मोबाईल नम्बर एवं ईमेल-आईडी सहित) दिनांक 08/12/2023 तक ईमेल:- dte5.planning@mp.gov.in पर उपलब्ध करावें। नामित फैकल्टी संचालनालय तकनीकी शिक्षा, आई.आई.टी.दिल्ली-एफआईटीटी के संबंधित प्रतिनिधि एवं विद्यार्थियों के मध्य समन्वय स्थापित कर प्रशिक्षण कार्यक्रम के सुगम संचालन में अपना सहयोग प्रदान करेगें।

उपरोक्त प्रशिक्षण कार्यक्रम हेतु विभिन्न इंजीनियरिंग महाविद्यालयों से प्राप्त विद्यार्थियों की सूची के उपरांत वर्तमान में निम्न तालिका अनुसार प्रशिक्षण हेतु सीट्स उपलब्ध हैं:-

S.No.	Course Name	Total Seats	Registration from Govt. Colleges	Registration from Private Colleges	Vacant Seats
1	Artificial Intelligence Builder	1000	520	480	0
2	Blockchain Builder	1000	61	314	625
3	5G IoT CoE Builder	1000	165	161	674
4	Computer Vision (CV) Builder	1000	25	103	872

Artificial Intelligence के क्षेत्र में प्रशिक्षण हेतु 1000 से अधिक विद्यार्थियों की सूची प्राप्त हुई है। अतः आपके महाविद्यालय द्वारा प्रेषित सूची के विद्यार्थियों को Artificial Intelligence के अतिरिक्त अन्य कोर्स में प्रशिक्षण हेतु उनकी च्वाइस प्राप्त कर नवीन सूची दिनांक 08/12/2023 सायंकाल 4:00 बजे तक ईमेल:- dte5.planning@mp.gov.in/ dteplanning@gmail.com पर उपलब्ध कराने का कष्ट करें।

05/12/23
(डॉ. मोहन सेन)
अतिरिक्त संचालक एवं कार्यालय प्रमुख
तकनीकी शिक्षा, मध्यप्रदेश

पृ क्रमांक/यो/05/एम/2023/ 658 /भोपाल, दिनांक : 5 /12/2023

प्रतिलिपि:- निम्नांकित की ओर सूचनार्थ एवं आवश्यक कार्यवाही हेतु अग्रेषित :-

1. निज सहायक, अपर मुख्य सचिव, म.प्र. शासन, तकनीकी शिक्षा, कौशल विकास एवं रोजगार विभाग, मंत्रालय, वल्लभ भवन, भोपाल की ओर सूचनार्थ
2. निज सहायक, आयुक्त तकनीकी शिक्षा, मध्यप्रदेश भोपाल की ओर सूचनार्थ प्रेषित।
3. डायरेक्टर, आई.आई.टी. दिल्ली की ओर सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।

05/12/23
अतिरिक्त संचालक एवं कार्यालय प्रमुख
तकनीकी शिक्षा, मध्यप्रदेश

List of students for Online Training Programme

Under MoU between Madhya Pradesh State Skill Development and Employment Generation Board (MPSSDEGB) and Foundation for Innovation and Technology Transfer (FITT) IIT-Delhi

Courses : **1**-Artificial Intelligence Builder ☐, **2**- Blockchain Builder ☐, **3**- 5G IoT CoE Buider☐, **4**- Computer Vision (CV) Builder ☐ (Please tick appropriate)

1	2	3	4	5	6	7	8	9	10	11
S.No.	Name of Student	Branch	Sem.	Category	Email Id	Mob. No.	Adhaar No.	Institute Name	CGPA	Admission deposit@1000/-

** Please use seprate sheet for each course.*

Signature of Director/ Principal

Mob. No. :

Email :

MPSSDEGB
कौशल से रोजगार, समृद्धि अपार

COURSE DURATION	TEACHING HOURS	LAB HOURS
2 MONTHS	40+ HOURS	40+ HOURS

ARTIFICIAL INTELLIGENCE BUILDER

Career Pathway Skilling Program for Engineering Students

In Collaboration with

FITT
FOUNDATION FOR INNOVATION AND TECHNOLOGY TRANSFER
भारतीय प्रौद्योगिकी संस्थान दिल्ली
Indian Institute of Technology Delhi

The Future is Artificial Intelligence

NASSCOM®

Artificial intelligence (AI) has created new opportunities in recent years. Industries are being affected, making previously unthinkable activities like space travel and melanoma diagnosis viable. As a result, there has also been a continuous rise in AI careers. LinkedIn said AI professionals would be among the 'jobs on the rise' in 2023and beyond.

AI is set to be the key source of transformation, disruption and competitive advantage in today's fast changing economy. In this report we've drawn on the findings to create our AI Impact Index, where we look at how quickly change is coming and where your business can expect the greatest return.

pwc

MeitY
Government of India

IndiaAI has a mission-centric approach that ensures a precise and cohesive strategy to bridge the gaps in the existing AI ecosystem viz-a-viz Compute infrastructure, Data, AI financing, Research and Innovation, targeted Skilling, and institutional capacity for Data to maximize the potential of AI to advance India's progress.

Generative AI is already proving a significant differentiator for the 5% of the population who work more than one job or have multiple earnings streams. A recent Morgan Stanley Research survey shows that multi-earners who use generative AI tools to enhance productivity or efficiency make $8.50 per hour, or 21%, more than those who don't.

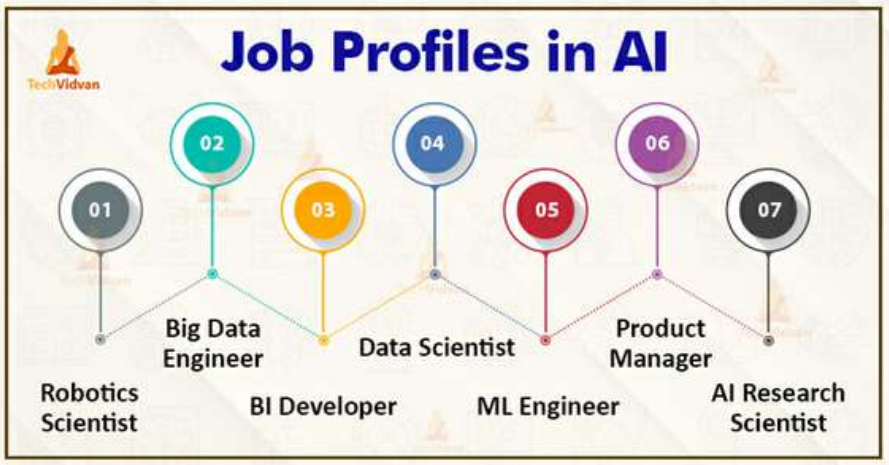
Morgan Stanley

Why Artificial Intelligence

Experts at Nexford University say that AI and machine learning will help workers by creating more occupations than it replaces. That said, in order to ride the wave and build a new career, you have to have procured the skills necessary to get the job done. If you're exposed to AI and are looking to pivot into an AI-focused role, demonstrating your knowledge and experience with AI development can give you an edge.

Artificial Intelligence Employment & Salary Trends

The Artificial Intelligence market is expected to grow by USD 190.61 billion by 2025. Since the adoption of Artificial Intelligence is rapidly increasing in various applications, it is projected to grow at the highest CAGR during the forecast period. Big Tech companies like IBM, Google, Facebook, Microsoft, Amazon, etc., are Readily hiring experts Proficient in AI.



Role	India	US	UK	Canada
Machine Learning Engineer	INR 6,00,000	$112,000	£57,500	CAD 96,000
Data Scientist	INR 8,50,000	$117,000	£57,500	CAD 96,000
Data Analyst	INR 4,50,000	$75,000	£30,000	CAD 60,000
Deep Learning Engineer	INR 8,00,000	$129,000	£77,500	CAD 100,000
NLP Engineer	INR 10,00,000	$132,000	£62,500	CAD 108,000

About Collaboration

IIT Delhi – FITT

Foundation for Innovation and Technology Transfer (FITT) at IIT Delhi has been the vanguard of knowledge transfer activities from academia since its inception in 1992. This techno-commercial organization from academia is counted amongst the successful such organizations. FITT provides superior program management services and is steadily increasing its operational landscape. The varied roles of FITT can be seen in enabling innovations and technopreneurship, business partnerships, technology development, consultancy, collaborative R&D, technology commercialization, development programs, corporate memberships etc. These roles are necessitated by the key agenda of the Foundation to showcase the Institute's "intellectual ware" to industry, and thereby unlock it's knowledge base and inculcate industrial relevance in teaching and research at IIT Delhi.

IIT Delhi is India's eminent academic and research institution. It co-develops a range of training programs from College level to working professionals and also on emerging areas like Blockchain, AI/ML, IoT, AR/VR & Cybersecurity. The CoE in IIT Delhi has been set up to conduct deep research and product development in these areas, particularly for critical infrastructures like Waterways, Smart Cities, Railways and Energy.

CONTENT AND CURRICULUM

The course are designed to be job-oriented for suitably skilling the participants for the role of AI/ML analysts, forecasting analysts, AI Product Developers, and AI Researchers, apart from being AI Entrepreneurs . Hence, the course will be practical heavy and will familiarize the participants to the development environment of the platforms providing an end-to-end developer skilling. The course will be made more contextual by following up with Capstone projects designed after the latest protocol and application development.

The details of the course content and curriculum are provided below:

Course Name - Foundational Course in Artificial Intelligence

Course Objectives:

- To Understand AI Fundamentals: Provide students with a solid understanding of the foundational concepts, principles, and terminology in Artificial Intelligence.
- To Develop Problem-Solving Skills: Equip learners with the ability to apply AI techniques to address real-world challenges and enhance their problem-solving capabilities.
- To Foster Ethical Awareness: Introduce the ethical considerations and responsible use of AI, enabling students to make ethical decisions in AI applications.
- To Prepare for AI-Related Careers: Prepare students for careers in AI by providing the requisite knowledge and skills in AI development and implementation.
- To Promote Innovation and Creativity: Encourage creative thinking and innovation in developing AI-driven solutions and applications.

Prerequisites

- High school diploma or equivalent.
- Basic understanding of mathematics and programming fundamentals.
- Familiarity with at least one programming language is beneficial but not mandatory.
- Access to a computer with internet connectivity for programming assignments and project work

Learning Outcomes

By the end of the course, students should be able to:

- *Define key AI concepts and terminology, such as machine learning, neural networks, and data mining.*
- *Apply AI techniques to analyze and solve real-world problems.*
- *Evaluate the ethical implications of AI applications and make informed, responsible decisions.*
- *Demonstrate proficiency in AI programming languages and tools.*
- *Develop AI-driven solutions for various applications.*

Course Name - Foundational Course in Artificial Intelligence

MODULES	TOPICS COVERED
Module 1: Introduction to AI	AI Definitions and Concepts
	Historical Perspective
	AI in the Modern World
Module 2: Machine Learning Fundamentals	Supervised Learning
	Unsupervised Learning
	Reinforcement Learning
Module 3: Neural Networks and Deep Learning	Perceptrons
	Feedforward Neural Networks
	Convolutional Neural Networks
	Recurrent Neural Networks
Module 4: Data Analysis for AI	Data Preprocessing
	Feature Engineering
	Model Evaluation
Module 5: Ethical Considerations in AI	Bias and Fairness
	Privacy and Security
	Accountability and Transparency

Module 6: AI Programming Languages and Tools	Python for AI
	Popular AI Libraries (e.g., TensorFlow, PyTorch)
Module 7: Basics of AI Applications	Natural Language Processing
	Computer Vision
	Robotics
	Healthcare
Module 8: Capstone Project	Apply AI knowledge to develop a real-world AI solution

Enrollment Process

The FITT-IIT Delhi course is being provided to selected students free of cost by MPSSDEGB.

Eligibility: Engineering students from Madhya Pradesh (Year 2 onwards) Limited seats only.

Application Form

Name.....

Institution Name.....

Student ID.....

Current Pursuing Course.....

Year..... CGPA.....

Phone..... E-Mail.....

Aadhar Number.....

Parents Name.....

Course Interested (Please Select One)

☐ Blockchain Builder ☐ IoT Builder

☐ AI Builder ☐ C.V. Builder

Enrollment fees of Rs. 1,000 payable to MPSSDEGB. The fees would be refundable on successful completion of course

MPSSDEGB
कौशल से रोजगार, समृद्धि अपार

FITT
FOUNDATION FOR INNOVATION AND TECHNOLOGY TRANSFER
भारतीय प्रौद्योगिकी संस्थान दिल्ली
Indian Institute of Technology Delhi

MPSSDEGB
कौशल से रोजगार, समृद्धि अपार

COURSE DURATION	TEACHING HOURS	LAB HOURS
2 MONTHS	40+ HOURS	40+ HOURS

IoT & 5G BUILDER

Career Pathway Skilling Program for Engineering Students

In Collaboration with

FITT
FOUNDATION FOR INNOVATION AND TECHNOLOGY TRANSFER
भारतीय प्रौद्योगिकी संस्थान दिल्ली
Indian Institute of Technology Delhi

About Collaboration

IIT Delhi – FITT

Foundation for Innovation and Technology Transfer (FITT) at IIT Delhi has been the vanguard of knowledge transfer activities from academia since its inception in 1992. This techno-commercial organization from academia is counted amongst the successful such organizations. FITT provides superior program management services and is steadily increasing its operational landscape. The varied roles of FITT can be seen in enabling innovations and technopreneurship, business partnerships, technology development, consultancy, collaborative R&D, technology commercialization, development programs, corporate memberships etc. These roles are necessitated by the key agenda of the Foundation to showcase the Institute's "intellectual ware" to industry, and thereby unlock its knowledge base and inculcate industrial relevance in teaching and research at IIT Delhi.

IIT Delhi is India's eminent academic and research institution. It co-develops a range of training programs from College level to working professionals and also on emerging areas like Blockchain, AI/ML, IoT, AR/VR & Cybersecurity. The CoE in IIT Delhi has been set up to conduct deep research and product development in these areas, particularly for critical infrastructures like Waterways, Smart Cities, Railways and Energy.

Course Name - Basics of IoT Framework and utilization in 5G Environment

In this course, students will learn the basic fundamentals of IoT, its integration with 5G, and how IoT devices and sensors can be used in a 5G network environment.

Course Objectives:

- Provide a basic foundation in IoT concepts, principles, and technologies.
- Explore seamless integration of IoT with 5G networks, emphasizing the advantages of 5G, such as high data speeds, low latency, and massive device connectivity.
- Examine real-world IoT applications across diverse domains, including smart cities, healthcare, agriculture, and industry, allowing students to appreciate the breadth of IoT's impact.
- Give abroad overview to students for design, implementation, and deployment of IoT solutions, including sensor selection, data management, and network connectivity.
- Understand the complexities of managing the vast amounts of data generated by IoT devices within the context of 5G networks.
- Provide basic insights into IoT applications tailored to specific industries, allowing students to identify opportunities and challenges in domains like healthcare, manufacturing, and agriculture.

Prerequisites

- High school diploma, equivalent.
- Basic understanding of mathematics and programming fundamentals.
- Familiarity with the basics of internet/networking is desirable.
- Familiarity with the basics of communication theory is desirable, but not mandatory.
- Familiarity with at least one programming language is beneficial but not mandatory.
- Access to a computer with internet connectivity for programming assignments and project work.

Learning Outcomes

Upon completing this course, students should be able to:

- Understand the basic concepts and principles of the Internet of Things (IoT), including device connectivity, data collection, and communication protocols.
- Explain how IoT seamlessly integrates with 5G networks, leveraging the high-speed, low-latency, and massive device connectivity features of 5G for enhanced IoT applications.
- Broadly evaluate a variety of practical IoT applications in different industries, including smart cities, agriculture, healthcare, and manufacturing.
- Understanding of IoT design and implementation within a 5G environment.
- Recognize industry-specific IoT use cases, identify opportunities, and navigate challenges in healthcare, manufacturing, agriculture, and other sectors.
- Promote ethical considerations in IoT data collection and usage, emphasizing privacy, responsible data handling, and ethical IoT practices.
- Develop a future-ready mindset, allowing students to adapt to evolving IoT and 5G landscapes by staying informed about emerging technologies and standards.

MODULES	TOPICS COVERED
Module 1: Introduction to IoT	What is IoT?
	Historical Development of IoT
	IoT Ecosystem and Key Components
Module 2: IoT Communication Protocols	IoT Communication Technologies (basics)
	MQTT, CoAP, and HTTP in IoT (basics)
	Intro to LPWAN Technologies (LoRa, Sigfox)
	Intro to IoT Device-to-Cloud Communication

MODULES	TOPICS COVERED
Module 3: 5G Fundamentals	Basic Overview of 5G Networks
	5G Architecture and Components
	Benefits of 5G in IoT Applications
Module 4: IoT Device Selection and Configuration	Types of IoT Devices (Sensors, Actuators)
	Basic overview of IoT Device Selection Criteria
	Short brief on IoT Device Configuration and Management
Module 5: Data Management in IoT	Data Collection and Aggregation – basic concepts
	Data Analytics and Edge Computing – intro and basic knowledge
	Data Security and Privacy in IoT – an overview
Module 6: Industry-specific IoT Applications	Intro to Smart Cities and Urban IoT
	Basics of IoT in Healthcare , Agriculture, Manufacturing
Module 7: Capstone Project	IoT Solution Design and Implementation Embedded Systems / Network Configurations /Data Analytics (on any one of the three)
	Project Presentation and Documentation

Enrollment Process

The FITT-IIT Delhi course is being provided to selected students free of cost by MPSSDEGB.

Eligibility: Engineering students from Madhya Pradesh (Year 2 onwards)
Limited seats only.

Please fill in the below form

Name.....

Institution Name.....

Student ID.....

Current Pursuing Course.....

Year..... CGPA.....

Phone..... E-Mail.....

Aadhar Number.....

Parents Name.....

Course Interested (Please Select One)

☐ Blockchain Builder ☐ IoT Builder

☐ AI Builder ☐ C.V. Builder

Enrollment fees of Rs. 1,000 payable to MPSSDEGB. The fees would be refundable on successful completion of course

MPSSDEGB
कौशल से रोजगार, समृद्धि अपार

FITT
FOUNDATION FOR INNOVATION AND TECHNOLOGY TRANSFER
भारतीय प्रौद्योगिकी संस्थान दिल्ली
Indian Institute of Technology Delhi

MPSSDEGB
कौशल से रोजगार, समृद्धि अपार

COURSE DURATION	TEACHING HOURS	LAB HOURS
2 MONTHS	40+ HOURS	40+ HOURS

BLOCKCHAIN BUILDER

Career Pathway Skilling Program for Engineering Students

In Collaboration with

FITT

FOUNDATION FOR INNOVATION AND TECHNOLOGY TRANSFER

भारतीय प्रौद्योगिकी संस्थान दिल्ली
Indian Institute of Technology Delhi

The Future is Blockchain

The blockchain technology is said to boost the global economy by $1.76 Tn, contributing about 1.4% of global GDP and creating 40 Mn jobs by 2030. While China stands to gain the highest potential net benefit at $440.4 Bn, followed by the US at $407.2 Bn, India is estimated to benefit by more than $62.2 Bn in the same period.

NASSCOM has estimated that over 800,000 jobs will be created by the year 2030 in the Indian CryptoTech industry in terms of direct employment

MeitY will work with various government organizations and other stakeholders in implementing this strategy and realizing the various advantages of blockchain technology in terms of enhanced security, trust, and its ability to ensure tamper-evident transactions.

NASSCOM has estimated that over 800,000 jobs will be created by the year 2030 in the Indian CryptoTech industry in terms of direct employment

About Collaboration

IIT Delhi – FITT

Foundation for Innovation and Technology Transfer (FITT) at IIT Delhi has been the vanguard of knowledge transfer activities from academia since its inception in 1992. This techno-commercial organization from academia is counted amongst the successful such organizations. FITT provides superior program management services and is steadily increasing its operational landscape. The varied roles of FITT can be seen in enabling innovations and technopreneurship, business partnerships, technology development, consultancy, collaborative R&D, technology commercialization, development programs, corporate memberships etc. These roles are necessitated by the key agenda of the Foundation to showcase the Institute's "intellectual ware" to industry, and thereby unlock it's knowledge base and inculcate industrial relevance in teaching and research at IIT Delhi.

IIT Delhi is India's eminent academic and research institution. It co-develops a range of training programs from College level to working professionals and also on emerging areas like Blockchain, AI/ML, IoT, AR/VR & Cybersecurity. The CoE in IIT Delhi has been set up to conduct deep research and product development in these areas, particularly for critical infrastructures like Waterways, Smart Cities, Railways and Energy.

About Course

Blockchain Builder Course

This course introduces one of the most disruptive and in-demand Technology to the students – Blockchain Technology. It helps the students conceptualize the fundamentals of the Technology and its wide scope in the areas of both Private and Public Sector. It also helps the students scale the progress of the Technology and how it is used in creating innovative business solutions in the present day. Thereafter, this course goes on to help the students begin building with Blockchain using a public blockchain system – the Ethereum.

Ethereum is the most popular blockchain among blockchain developers and cryptocurrency communities. Through this Program, the learner would be deeply entrenched in Ethereum concepts. Ethereum is like a virtual computation environment for decentralized data processing. It is also termed the Ethereum Virtual Machine or EVM. The course focuses on imparting a complete understanding of the various components of the EVM, its working principles, the requirements for the various smart contracts to act in a purposeful manner, the formation of decentralized applications, decentralized autonomous organizations, non-fungible tokens, utility tokens, soul bound tokens, etc. on the Ethereum platform.

Why Blockchain

Experts at KPMG say that the main reason for the sudden growth in demand for blockchain developers is that many major enterprise projects have reached a maturity stage by 2020, moving from proofs of concept in 2017 to pilot projects in 2018 and then to production systems in 2019 and 2020.

Blockchain's Employment & Salary Trends

Blockchain developers are now the most sought-a er professionals in the programming world. The fluidity of this new technology allows developers to transfer their skills and experience across multiple industries. Only on **Glassdoor**, the worldwide yearly growth in blockchain job postings was around 300% in 2021. As a result, the demand for blockchain developers constantly increases as more businesses adopt this technology and move from proof of concept to production — this growing need for more specialists and competition for the best talent fuels salary growth.
In 2021, the US-national salary average for blockchain developers was $175,000, compared to the $77,000 average for so ware developers.

- **B.Tech Engineer**
  - Blockchain Fundamentals (Module 1)
- **Crypto & Blockchain Analyst**
  - Ethereum Developer Course (Module 2)
- **Smart Contract Developer**

Germany
$60k-150k

US
$203,000

India
₹460K

Singapore
S$95,865K

About Course
Content and Curriculum

The courses are designed to be job-oriented for suitably skilling the participants for the role of Smart Contract Developers over the Ethereum platform. Hence, the course will be practical heavy and will familiarize the participants to the development environment providing an end-to-end developer skilling. The course will be made more contextual by following up with Capstone projects designed after the latest protocol and application development

The details of the course content and curriculum are provided below:

Part 1: Fundamentals of Blockchain Technology

Course Objective

- To provide a broad overview of the Blockchain Technology and its essential concepts.
- To provide a working concept of the various technologies used in the blockchain. technology.
- To provide an overview of the smart contracts and the various applications of the technology in different fields.
- To provide a snapshot of the advancements and most recent applications of the Technology.

Learning Outcomes

Post participation in the course, the skilled participant

- Should be able to explain blockchain technology and decentralized consensus systems
- Should be able to understand cryptographic security and immutability in public ledgers
- Should be able to apply the learnings and analyse operational efficiency interventions using the technology
- Should be able to explain the various blockchains - layer 1, layer 2/ public, private, hybrid/ centralized, decentralized etc.
- Should be able to explain the functions of oracles, legos and bridges and other such utilities in the ecosystem
- Should have an operational understanding of Decentralized systems as in Dapps, DAOs, DeFi etc.

Part 2: Developing on a Public Blockchain (Ethereum)

Course Objective

- To initiate the students to the concepts and construct of Smart Contracts
- To provide a hands-on training of the Smart Contract Creation Language - Solidity
- To expose the students to the Development and Deployment environment of Smart Contracts
- To initiate the students to the process involved in a Dapp creation

Pre-requisites for Learners

- Certificate course of Fundamentals of Blockchain Technology
- Exposure to any high level coding language environment

Learning Outcomes

Post participation in the course, the skilled participant

- Should be able to write and deploy smart contracts using Solidity
- Sould be able to create a Dapp and deploy the same using Solidity, Truffle and Ganache

MODULES	TOPICS COVERED
Module 1 : Evolution of The Blockchain Technology	Introduction to Blockchain & DLT – 1
	Introduction to Blockchain & DLT – 2
Module 2: The First Protocol: Bitcoin Blockchain	Transaction: Creation, Verification & Validation
	Block Creation and Addition
	The Block Header & Mining
	Securing the Network – Incentive
	Consensus Model: POW
Module 3: Blockchain 2.0: Ethereum and Smart Contracts	Ethereum Blockchain: Genesis & Motivation
	Ethereum Structure: Differences from Bitcoin Structure
	Smart Contracts: Transactions Processing
	Operations: Turin Complete & Gas Fees
	Consensus Model & Incentive Model
Module 4: Beyond 2.0 - Dapps, DAOs, Layer2, Oracles	Types of Blockchain: Public, Private & Hybrid
	Layer 2 Solutions and Types
	Multichains, Interoperability Protocols
	Oracles, Legos, Bridges etc
	Dapps, DeFi and DAOs

Module 5 : Evolution of The Blockchain Technology	Blockchain for Business: Efficiency Improvement
	Utility Tokens, NFTs, SBTs : Tokenization and Application
	Metaverse, NFTs, Business Applications and Beyond, DeSoc

Part 2 : Developing on a Public Blockchain (Ethereum)

MODULES	TOPICS COVERED
Module 6 : Introduction to Smart Contracts	Smart Contracts: Definition and Need
	Features of Smart Contracts
	Lifecycle of a Smart Contract
	Introduction to Ethereum Higher level Language
Module 7 : Development Environment	Building a Simple Smart Contract with Solidity
	Solc-Compiler
	Ethereum Contract ABI
	Remix-IDE for Smart Contract Development

MODULES	TOPICS COVERED
Module 8 : Introduction to Solidity	Variables, Functions, Getters & Setters, Variables
	Constructors, Error handling, Arrays, Structs, Mappings in Solidity, Inheritance, Events, Memory Vs Storage
	Restrictions, Libraries, Abstract Contracts, Interfaces
	Program Practical
Module 9 : Truffle Framework & Ganache	Environment Setup for Truffle & Ganache
	Truffle Project Creation
	Truffle Compile, Migrate and Create Commands
Module 10: Decentralized App Creation	Smart Contract Creation
	Front End Creation
	Connecting Smart Contract with Front End Application
	Deploying Dapp
	Validation and Testing of Dapp
	Bringing Front End infused DApp to Production
	Dapp Projects

Enrollment Process

The FITT-IIT Delhi course is being provided to selected students free of cost by MPSSDEGB.

Eligibility: Engineering students from Madhya Pradesh (Year 2 onwards)
Limited seats only.

Please fill in the below form

Name.....

Institution Name.....

Student ID.....

Current Pursuing Course.....

Year..... CGPA.....

Phone..... E-Mail.....

Aadhar Number.....

Parents Name.....

Course Interested (Please Select One)

☐ Blockchain Builder ☐ IoT Builder

☐ AI Builder ☐ C.V. Builder

Enrollment fees of Rs. 1,000 payable to MPSSDEGB. The fees would be refundable on successful completion of course

MPSSDEGB
कौशल से रोजगार, समृद्धि अपार

FITT
FOUNDATION FOR INNOVATION AND TECHNOLOGY TRANSFER
भारतीय प्रौद्योगिकी संस्थान दिल्ली
Indian Institute of Technology Delhi

MPSSDEGB
कौशल से रोजगार, समृद्धि अपार

COURSE DURATION	TEACHING HOURS	LAB HOURS
2 MONTHS	40+ HOURS	40+ HOURS

COMPUTER VISION (CV) BUILDER

Career Pathway Skilling Program for Engineering Students

In Collaboration with

FITT

FOUNDATION FOR INNOVATION AND TECHNOLOGY TRANSFER

भारतीय प्रौद्योगिकी संस्थान दिल्ली
Indian Institute of Technology Delhi

About Collaboration

IIT Delhi – FITT

Foundation for Innovation and Technology Transfer (FITT) at IIT Delhi has been the vanguard of knowledge transfer activities from academia since its inception in 1992. This techno-commercial organization from academia is counted amongst the successful such organizations. FITT provides superior program management services and is steadily increasing its operational landscape. The varied roles of FITT can be seen in enabling innovations and technopreneurship, business partnerships, technology development, consultancy, collaborative R&D, technology commercialization, development programs, corporate memberships etc. These roles are necessitated by the key agenda of the Foundation to showcase the Institute's "intellectual ware" to industry, and thereby unlock it's knowledge base and inculcate industrial relevance in teaching and research at IIT Delhi.

IIT Delhi is India's eminent academic and research institution. It co-develops a range of training programs from College level to working professionals and also on emerging areas like Blockchain, AI/ML, IoT, AR/VR & Cybersecurity. The CoE in IIT Delhi has been set up to conduct deep research and product development in these areas, particularly for critical infrastructures like Waterways, Smart Cities, Railways and Energy.

CONTENT AND CURRICULUM

This course aims to provide students with a basic foundation in Machine Learning (ML) and Artificial Intelligence (AI) with a specific focus on Computer Vision (CV) with basic insight into Gen AI, AR/VR. The objective is to equip learners with the knowledge and skills to apply ML and AI techniques to solve real-world industry problems in the context of computer vision .

Course Objectives:

- Provide students with a basic foundational knowledge of ML and AI, including algorithms, techniques, and key concepts.
- Introduce the fundamentals of Computer Vision, including image processing, feature extraction, and object recognition, and their role in AI and ML.
- Emphasize the real-world applications of ML, AI, and CV in industries such as healthcare, manufacturing, autonomous vehicles, and more.
- Develop basic practical skills to implement AI and CV solutions, enabling students to work on industry-specific projects and challenges.

Prerequisites

- High school diploma or equivalent.
- Basic understanding of mathematics and programming fundamentals.
- Familiarity with at least one programming language is beneficial but not mandatory.
- Access to a computer with internet connectivity for programming assignments and project work.

Learning Outcomes

Upon completing this course, students should be able to:

- Understand the basic fundamentals of ML, AI, and CV.
- Apply ML and AI algorithms to process visual data.
- Implement basic CV techniques for industry-specific applications.
- Evaluate and troubleshoot basic ML and AI models in the context of CV.
- Identify and address ethical considerations related to basic CV applications in industry.

MODULE	TOPICS COVERED
Module 1: Introduction to AI and ML for Computer Vision	Understanding Machine Learning (ML) and Artificial Intelligence (AI)
	Types of ML and AI for Computer Vision
	Historical Development and Industry Impact
Module 2: Introduction to Computer Vision (CV)	Basics of Computer Vision
	Image Processing Techniques
	Feature Extraction and Transformation
Module 3: Basic Deep Learning and Neural Networks	Neural Networks and Deep Learning Concepts
	Convolutional Neural Networks (CNNs)
	Recurrent Neural Networks (RNNs)
	Generative Techniques for Computer Vision
Module 4: Overview of Object Detection and Recognition	Object Detection Techniques
	Image Classification and Recognition
	Face and Emotion Recognition
	Industry Applications of CV including AR/VR
Module 5: Practical Basic AI and CV Projects	Implementing AI and CV Solutions
	Industry-Specific Projects
	Project Presentations and Evaluation

Enrollment Process

The FITT-IIT Delhi course is being provided to selected students free of cost by MPSSDEGB.

Eligibility: Engineering students from Madhya Pradesh (Year 2 onwards)
Limited seats only.

Please fill in the below form

Name.....

Institution Name.....

Student ID.....

Current Pursuing Course.....

Year..... CGPA.....

Phone..... E-Mail.....

Aadhar Number.....

Parents Name.....

Course Interested (Please Select One)

☐ Blockchain Builder ☐ IoT Builder

☐ AI Builder ☐ C.V. Builder

Enrollment fees of Rs. 1,000 payable to MPSSDEGB. The fees would be refundable on successful completion of course

MPSSDEGB
कौशल से रोजगार, समृद्धि अपार

FITT
FOUNDATION FOR INNOVATION AND TECHNOLOGY TRANSFER
भारतीय प्रौद्योगिकी संस्थान दिल्ली
Indian Institute of Technology Delhi