Institutional Programme Brochure / Circular and Curriculum of Value Added Programs for Academic Session 2022-23

Date :-13th September 2022

CIRCULAR

We are delighted to inform to all 1st Year and 1st Semester students that the institute has entered and signed an "Memorandum of Understanding (MOU)" with **M/S Seven Seas Services.**

The main feature of this MOU is to train our students of 1st Semester of 1st Year in the area of "Personality Development" which will be undertaken by their concerned senior executive.

Therefore, all the students of 1st Year/ 1st Semester of Computer Science, Artificial Intelligence and Data Science are to note that from **26th Sept. 2022**, the institute is starting two months Value Added Program on "**Personality Development**" under the guidance and supervision of M/S Seven Seas Services.

Please note that it would be a total thirty hours course in which various traits on personality development shall be explained and elucidated. This course is immensely beneficial to all students specially those of looking forward for professional growth on completion of their respective programs.

All the interested students are requested to register for this course and forward their expression of interest to pursue the above course in the annexed form for the records.

Please further be noted that the above course would be free of cost and as such no fees for the same shall be charged from the students to undertake this course.

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Mangalmay Institute of Engineering & Technology
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Syllabus - Schedule

Course Title: Personality Development Course

Course Duration: 8 weeks (30 hours in total)

Week 1: Introduction to Personality Development (3 hours)

Session 1 (Day 1):

Course overview and objectives, Understanding the concept of personality, Self-assessment and goal setting

Session 2 (Day 2):

Factors influencing personality development, Nature vs. nurture debate, Personality traits and characteristics

Session 3 (Day 3):

Personality theories (Freud, Maslow, Big Five, etc.), Identifying and analyzing your personality traits

Week 2: Self-Awareness and Self-Concept (3 hours)

Session 4 (Day 4):

- Self-awareness and its importance
- Self-concept and self-esteem
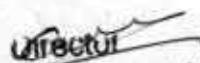- Techniques for improving self-awareness

Session 5 (Day 5):

Self-assessment tools (MBTI, StrengthsFinder, etc.), Self-reflection and self-improvement strategies, Practical exercises for self-awareness

Session 6 (Day 6):

Personal values and beliefs, Developing a personal mission statement, Aligning personal values with career goals

Week 3: Communication Skills (4 hours)

Session 7 (Day 7):

Importance of effective communication, Verbal vs. non-verbal communication, Active listening skills

Session 8 (Day 8):

Assertiveness and self-confidence, Overcoming communication barriers, Role-play and practice exercises

Session 9 (Day 9):

Interpersonal communication, Conflict resolution and negotiation, Building strong relationships

Session 10 (Day 10):

Public speaking and presentation skills, Speech preparation and delivery, Feedback and improvement

Week 4: Emotional Intelligence (3 hours)

Session 11 (Day 11):

Understanding emotional intelligence (EI), Importance of EI in personal and professional life, Self-assessment of EI

Session 12 (Day 12):

Managing and regulating emotions, Empathy and social awareness, Enhancing emotional intelligence

Session 13 (Day 13):

Emotional intelligence in leadership, Conflict management with EI, Group activities and discussions

Week 5: Time Management and Goal Setting (4 hours)

Session 14 (Day 14):

Time management principles, Setting SMART goals, Prioritization techniques

Session 15 (Day 15):

Procrastination and time-wasters, Creating effective schedules, Time management tools and apps

Session 16 (Day 16):

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Achieving work-life balance, Stress management and relaxation techniques, Guest speaker on time management

Week 6: Leadership and Teamwork (4 hours)

Session 17 (Day 17):

Leadership qualities and styles, Developing leadership skills, Case studies and group discussions

Session 18 (Day 18):

Team dynamics and roles, Building and leading effective teams, Group projects and presentations

Session 19 (Day 19):

Conflict resolution in teams, Collaborative problem-solving, Team-building exercises

Week 7: Personal Branding and Networking (4 hours)

Session 20 (Day 20):

Creating a personal brand, Online presence and social media, Personal branding case studies

Session 21 (Day 21):

Building a professional network, Networking strategies and tools, Elevator pitches and networking events

Session 22 (Day 22):

Resume writing and job search strategies, Interview skills and techniques, Mock interviews and feedback

Week 8: Course Conclusion and Future Planning (3 hours)

Session 23 (Day 23):

Course recap and progress review, Personal development plans, Setting goals for the future

Session 24 (Day 24):

Continuing self-improvement, Resources for ongoing learning, Course evaluation and feedback

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Mangalmay Institute of Engineering & Technology

Date: - 16th August 2022

CIRCULAR

We are delighted to announce that the institute has signed a Memorandum of Understanding (MOU) with "M/S PRUTOR@IITK" to provide training to our students of 3rd Semester in the area of "Full Stack Developer." The MOU outlines a program that will be undertaken by their senior executive specifically for the students of the above semesters.

We are pleased to inform you that the two-month Add On Program on "Full Stack Developer" will commence from 29th August 2022. This program is open to all students of 3rd Semester pursuing Computer Science, Artificial Intelligence, and Data Science. The Classes will be held under the guidance and supervision of "M/S PRUTOR@IITK" by their team experts.

This course is a total of thirty eight hours during in which various traits of java full stack will be explained and elucidated. It will be immensely beneficial to all students, especially those looking to enhance their professional growth upon completion of their respective programs.

We request all interested students to register for this course and forward their expression of interest to pursue the above course in the annexed form for the records. We would like to emphasize that the above course is free of cost and as such, no fees shall be charged from the students to undertake this course.

We encourage you to take advantage of this opportunity to develop your personality and professional skills.

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Course Title: Full Stack Developer(Java)

Course Duration: 8 weeks (30 hours)

Course Objectives:

1. To introduce students to the Java programming language.
2. To provide a foundation in core Java concepts.
3. To enable students to write, compile, and execute Java programs.
4. To prepare students for further study and application of Java in real-world scenarios.

Week 1: Introduction to Java and Basic Syntax (4 hours)

Introduction to Java and its history., Setting up the development environment (IDE, JDK)., Basic program structure in Java., Variables, data types, and operators.

Week 2: Control Structures (4 hours)

Conditional statements (if, else if, switch)., Looping constructs (while, for, do-while).

Week 3: Object-Oriented Programming Concepts (4 hours)

Constructors and methods., Inheritance and polymorphism.

Week 4: More on Object-Oriented Programming (4 hoursEncapsulation and access modifiers.

Abstract classes and interfaces., Exception handling (try, catch, throw, throws, finally).

Week 5: Arrays and Collections (4 hours)

Arrays and Array List., Searching and sorting techniques., Introduction to HashMap and HashSet.

Week 6: File Handling and Input/Output Streams (4 hours)

Reading and writing text files.,Reading and writing binary files.

Week 7: GUI Programming with Swing (4 hours)

Introduction to Swing components., Event handling and listeners.,Building a simple Swing application.

Week 8: Advanced Topics and Real-World Applications (2 hours)

Multithreading in Java.,Overview of Java frameworks and applications (e.g., Java EE, Android development).

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Date: - 3rd October 2022

CIRCULAR

We are delighted to announce that the institute has signed a Memorandum of Understanding (MOU) with **M/S Red Hat** to provide training to our students of 5th Semester in the area of "Fundamentals of Python." The MOU outlines a program that will be undertaken by their senior executive specifically for the students of the above semesters.

We are pleased to inform you that the two-month Add OnProgram on "**Python with AI & ML - A Comprehensive Introduction**" will commence from **12th October 2022**. This program is open to all students of **5th semester** pursuing Computer Science, Artificial Intelligence, and Data Science. The Classes will be held under the guidance and supervision of M/S Red Hat by their team experts.

This course is a total of thirty hours during in which various traits of Fundamental of Python will be explained and elucidated. It will be immensely beneficial to all students, especially those looking to enhance their professional growth upon completion of their respective programs.

We request all interested students to register for this course and forward their expression of interest to pursue the above course in the annexed form for the records. We would like to emphasize that the above course is free of cost and as such, no fees shall be charged from the students to undertake this course.

We encourage you to take advantage of this opportunity to develop your personality and professional skills.

Best regards,

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Course Title: Python with AI & ML - A Comprehensive Introduction

Duration: 30 hours (8 weeks), with 1-hour sessions each day

Course Objectives:

- To provide a strong foundation in Python programming.
- To introduce the concepts and techniques of Artificial Intelligence and Machine Learning.
- To enable students to apply Python, AI, and ML to real-world problems.
- To prepare students for further advanced courses or practical applications in AI and ML.

Week 1: Introduction to Python (6 hours)

- Day 1: Introduction to Python, Installation, IDEs
- Day 2: Basic Python Syntax and Data Types
- Day 3: Control Structures (if, loops)
- Day 4: Functions and Modules
- Day 5: Lists, Tuples, Dictionaries
- Day 6: Python Libraries and Packages (Numpy, Pandas)

Week 2: Intermediate Python (6 hours)

- Day 7: File Handling
- Day 8: Exception Handling
- Day 9: Object-Oriented Programming (OOP) in Python
- Day 10: Regular Expressions (Regex)
- Day 11: Introduction to Data Visualization (Matplotlib)
- Day 12: Introduction to Data Manipulation (Pandas)

Week 3: Introduction to AI (6 hours)

- Day 13: What is Artificial Intelligence?
- Day 14: AI History and Evolution
- Day 15: Types of AI (Narrow vs. General)
- Day 16: Machine Learning vs. AI
- Day 17: Supervised Learning vs. Unsupervised Learning
- Day 18: AI in Real-world Applications

Week 4: Introduction to Machine Learning (6 hours)

- Day 19: What is Machine Learning?
- Day 20: Types of Machine Learning (Supervised, Unsupervised, Reinforcement)
- Day 21: Data Preprocessing and Feature Engineering
- Day 22: Model Selection and Evaluation

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- Day 23: Introduction to Scikit-Learn
- Day 24: Hands-on with a Simple ML Model

Week 5: Advanced Machine Learning (6 hours)

- Day 25: Supervised Learning Algorithms (Regression, Classification)
- Day 26: Unsupervised Learning Algorithms (Clustering, Dimensionality Reduction)
- Day 27: Model Evaluation and Hyperparameter Tuning
- Day 28: Ensemble Methods (Random Forest, Gradient Boosting)
- Day 29: Introduction to Deep Learning
- Day 30: Hands-on with Neural Networks

Week 6: Practical Applications (AI & ML) (6 hours)

- Day 31: AI and ML in Healthcare
- Day 32: AI and ML in Finance
- Day 33: AI and ML in Natural Language Processing
- Day 34: AI and ML in Computer Vision
- Day 35: Ethics and Bias in AI
- Day 36: Project Showcase and Discussion

Week 7: AI & ML Tools and Frameworks (6 hours)

- Day 37: Introduction to TensorFlow and Keras
- Day 38: Introduction to PyTorch
- Day 39: Introduction to Scikit-Learn for ML
- Day 40: Jupyter Notebooks for AI & ML
- Day 41: Deployment and Serving ML Models
- Day 42: Hands-on Projects and Case Studies

Week 8: Capstone Project (4 hours)

- Day 43-46: Guided Capstone Project
- Day 47: Project Presentation and Evaluation
- Day 48: Course Review and Q&A

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Date: 4th October 2022

CIRCULAR

Dear Students,

We are delighted to inform you that our institute has signed a Memorandum of Understanding (MOU) with M/S Cloud Kampus to provide training on "**Cyber Security and Virtual Internship**" to our **7th Semester** students of Computer Science. As per the MOU, a program will be conducted by their senior executives specifically for the students of the above semesters.

The two-month Add-On Program on "**Cyber Security and Virtual Internship**" will begin from **12th October 2022**. This program is exclusively open to all students of 7th Semester of Computer Science. The classes will be held on alternate days in a weeks as per the timetable under the guidance and supervision of **M/S Cloud Kampus** by their team of experts.

The course spans a total of thirty hours, during which the various aspects of Cyber Security and Virtual Internship will be explained, discussed and elucidated. This program is highly beneficial for all students, especially those who aspire to enhance their professional growth upon completion of their respective courses.

We request all interested students to register for this course and forward their expression of interest to pursue the above course in the annexed form for the records. We would like to emphasize that the course is entirely free of cost, and no fees shall be charged from the students to undertake this program.

We encourage you to avail of this opportunity to develop your personality and professional skills. We wish you all the best for your future endeavors.

Best wishes to all,

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Course Title: Cyber Security and Virtual Internship

Course Duration: 30 hours (10 weeks, 3 hours/week)

Course Description: This add-on course aims to equip B.Tech 7th-semester students with essential knowledge and skills in the field of cyber security. The course also includes a virtual internship component, allowing students to apply their learning in a real-world scenario.

Course Objectives:

1. Understand the fundamentals of cyber security.
2. Explore various threats and vulnerabilities in the digital landscape.
3. Learn best practices for securing systems, networks, and data.
4. Develop practical skills in ethical hacking and penetration testing.
5. Gain hands-on experience through a virtual internship project.
6. Improve problem-solving and critical thinking abilities in the context of cyber security.

Course Outline:

Week 1: Introduction to Cyber Security (3 hours)

Understanding the importance of cyber security., Differentiating between information security, cyber security, and network security., Overview of common cyber threats and attack vectors.

Week 2-3: Cyber Threats and Vulnerabilities (6 hours)

Types of cyber threats (malware, phishing, DDoS, etc.)., Identifying vulnerabilities in systems and networks., Case studies of prominent cyber-attacks.

Week 4-5: Cyber Security Best Practices (6 hours)

Security policies and standards., Secure network design and architecture., Access control and identity management., Encryption and data protection.

Week 6-7: Ethical Hacking and Penetration Testing (6 hours)

Introduction to ethical hacking., Foot printing and reconnaissance., Scanning and enumeration., Exploitation and post-exploitation., Hands-on labs and practice exercises.

Week 8-9: Virtual Internship (6 hours)

Introduction to the virtual internship project., Working on a simulated real-world cyber security challenge., Teamwork, reporting, and documentation.

Week 10: Cyber Security Career Paths and Certification (3 hours)

Exploring career opportunities in cyber security., Overview of relevant certifications (e.g., CISSP, CEH, CompTIA Security+)., Preparing for a career in cyber security.

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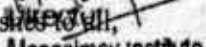
Date: 04/04/2023

CIRCULAR

Dear Students,

We are delighted to inform you that our institute has signed a Memorandum of Understanding (MOU) with **M/S IBM Skill Build** to provide training on "C++" to our 1st Year students. As per the MOU, a program will be conducted by their senior executives specifically for the students of the above semesters.

The two-month Add-On Program on "C++" will begin from **12th April 2023**. The classes will be held as per the the guidance and supervision of **M/S IBM Skill Build** by their team of experts.

The course spans a total of thirty hours.

We request all interested students to register for this course and forward their expression of interest to pursue the above course in the annexed form for the records. We would like to emphasize that the course is entirely free of cost, and no fees shall be charged from the students to undertake this program.

We encourage you to avail of this opportunity to develop your personality and professional skills. We wish you all the best for your future endeavors.

Best wishes to all,

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Course Title: Introduction to C++ Programming

Duration: 8 Weeks (30 hours)

Objective: This course aims to provide students with a solid foundation in C++ programming, enabling them to write, understand, and debug C++ code. It covers the fundamental concepts, syntax, and best practices in C++.

Week 1: Introduction to C++

Course Introduction, History of C++, Setting up Development Environment, First C++ Program, C++ Syntax, Variables, Data Types, and Basic I/O, Control Structures (if, else, switch), Loops (while, for)

Week 2: Functions and Modularity

Introduction to Functions, Function Parameters and Return Values, Function Overloading, Scope and Lifetime of Variables, Arrays and Vectors, C++ Standard Library

Week 3: Object-Oriented Programming (OOP)

Introduction to OOP, Classes and Objects, Constructors and Destructors, Member Functions, Encapsulation, Inheritance, Polymorphism

Week 4: More OOP Concepts

Operator Overloading, Friend Functions, Inheritance and Base Classes, Derived Classes, Virtual Functions and Abstract Classes

Week 5: Pointers, Dynamic Memory, and File Handling

Pointers and References, Dynamic Memory Allocation (new and delete), File Input and Output, Working with Text and Binary Files, Exception Handling

Week 6: Standard Template Library (STL)

Introduction to STL, Vectors, Lists, and Iterators, Maps and Sets, STL Algorithms,

Week 7: Advanced C++ Topics

Smart Pointers (shared_ptr, unique_ptr), Lambda Expressions, Multithreading Basics, Introduction to C++11 and Beyond, Review and Q&A Session

Resources: A textbook or online resources for C++ programming, a suitable C++ IDE (e.g., Visual Studio, Code::Blocks, or Dev C++).

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Date: 1st March2023

Circular

Dear Students,

We are happy to announce that our institute has signed an MOU with "AWS Academy"to offer a two-month Add-On Program on "AWS Academy Cloud Foundation" exclusively for 2nd Semester students of Computer Science, Artificial Intelligence and Data Science. This program will be conducted by senior executives of "AWS Academy"and will cover various aspects of "AWS Academy Cloud Foundation."

The program will begin on **15th March2023** and will be held on alternate days in a week as per the timetable. The course spans a total of fourty hours, and it is entirely free of cost. We encourage all interested students to register for this course by submitting the expression of interest form attached to this circular.

Participating in this program will help you enhance your professional growth and develop your personality and professional skills. We believe this is an excellent opportunity for all students, and we wish you all the best for your future endeavors.

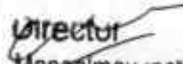Please find the details of the program below:

Program: Two-Month Add-On Program on "AWS Academy Cloud Foundation" Duration: 40 and added hoursTimings: Alternate days in a week as per the timetable Venue: Under the guidance and supervision of "AWS Academy"by their team of experts.

We kindly request all interested students to submit their expression of interest form by the deadline mentioned in the form.

Best wishes,
Mangalmay Institute of Engineering & Technology
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Course Outline

AWS Academy Cloud Foundations (ACF)

Digital Training	Introduction to Storage				
Lecture	Amazon Elastic Block Store (EBS)				
Video	Amazon EBS Demo				
Lab	Working with EBS				
Lecture	Amazon Simple Storage Service (S3)				
Video	Amazon S3 Demo				
Lecture	Amazon Elastic File System (EFS)				
Video	Amazon EFS Demo				
Lecture	Amazon Glacier				
Video	Amazon Glacier Demo				
Knowledge Check	Storage Services				
Section 3: VPC		37	25 min.	45 min.	10 min.
Video	Introduction to the Amazon Virtual Private Cloud (VPC)				
Lecture	Amazon Virtual Private Cloud (VPC)				
Lecture	Amazon VPC Security Groups				
Video	Amazon VPC Demo				
Lab	Build your VPC and Launch a Web Server				
Lecture	Amazon CloudFront				
Knowledge Check	Amazon Virtual Private Cloud				
Section 4: Database		54	36 min.	45 min.	10 min.
Lecture	Amazon Relational Database Service (RDS)				
Video	Amazon RDS Demo				
Lecture	Amazon DynamoDB				
Video	Amazon DynamoDB Demo				
Lecture	Amazon Redshift				
Lecture	Amazon Aurora				
Lab	Build Your DB Server and Interact with Your DB Using an App				
Knowledge Check	Databases Services				
Section 5: Balancing, Scaling, Monitoring		39	25 min.	45 min.	10 min.
Lecture	Elastic Load Balancing (ELB)				
Lecture	Amazon CloudWatch				
Lecture	Auto Scaling				
Digital Training	Balancing, Scaling, and Monitoring				
Lab	Scale and Load Balance Your Architecture				
Knowledge Check	Balancing, Scaling, and Monitoring				
Module 3 - Cloud Security		81	70 min.	30 min.	10 min.
Video	Introduction to Cloud Security				
Lecture	AWS Shared Responsibility Model				
Lecture	AWS Identity and Access Management (IAM)				
Video	IAM Demo				
Lecture	AWS Trusted Advisor				
Lecture	AWS CloudTrail				
Lecture	AWS Config				
Lecture	AWS Day One Best Practice Review				
Lecture	AWS Security and Compliance Programs				
Lecture	AWS Security Resources				
Digital Training	AWS Cloud Security				
Lab	Introduction to AWS IAM				

aws academy

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Course Outline

AWS Academy Cloud Foundations (ACF)

Course Contents

Digital training materials cover the same content as the lectures. It is not necessary to use both.

		Slides	Digital Training	Lab	Knowledge Check
Course Introduction		48	18 min.		
Video	Introduction to AWS Academy Cloud Foundations				
Digital Training	Welcome to AWS Academy Cloud Foundations				
Lecture	Course Overview and Objectives				
Lecture	Creating your AWS Training Portal Account				
Lecture	Access Your Course Materials				
Module 1 – Cloud Concepts					
Section 1: Cloud Concepts Overview		46	32 min.		10 min.
Video	Introduction to Cloud Computing				
Lecture	What is Cloud Computing?				
Digital Training	What is Cloud Computing?				
Lecture	Six Advantages of Cloud Computing				
Lecture	What is Amazon Web Services (AWS)				
Lecture	The AWS Cloud Adoption Framework (CAF)				
Knowledge Check	Cloud Concepts				
Section 2: Cloud Economics		33	32 min.		10 min.
Lecture	Fundamentals of Pricing				
Lecture	Total Cost of Ownership				
Digital Training	Introduction to Cloud Economics				
Knowledge Check	Cloud Economics				
Section 3: AWS Global Infrastructure Overview		18	13 min.		10 min.
Video	Introduction to the AWS Infrastructure				
Lecture	AWS Global Infrastructure				
Digital Training	Introduction to the AWS Infrastructure				
Lecture	AWS Service and Service Category Overview				
Knowledge Check	AWS Global Infrastructure				
Module 2 – AWS Core Services					
Video	Introduction to Core Services				
Section 1: Compute		67	45 min.		10 min.
Video	Introduction to Compute				
Lecture	Compute Services Overview				
Lecture	Introduction to Amazon Elastic Compute Cloud (EC2)				
Digital Training	Introduction to Compute				
Video	Amazon EC2 Console Demo				
Lab	Introduction to Amazon EC2				
Lecture	Amazon EC2 Cost Optimization				
Lecture	Introduction to AWS Lambda				
Lecture	Introduction to AWS Elastic Beanstalk				
Knowledge Check	Compute Services				
Section 2: Storage		55	40 min.		10 min.
Video	Introduction to Storage				

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Course Outline

AWS Academy Cloud Foundations (ACF)

Demonstration	IAM Demonstration (optional)				
Knowledge Check	Cloud Security				
Module 4 – Cloud Architecting		49	37 min.		10 min.
Video	Introduction to Cloud Architecting				
Lecture	Introduction to the Well-Architected Framework				
Lecture	Well-Architected Design Principles				
Lecture	Understanding Reliability and High Availability				
Example	Transitioning a Data Center to the Cloud				
Digital Training	Introduction to Cloud Architecting				
Knowledge Check	Cloud Architecting				
Module 5 – Cloud Support		33	22 min.		10 min.
Lecture	Introduction to AWS Organizations				
Lecture	AWS Cost Explorer				
Lecture	Overview of AWS Technical Support Plans and Costs				
Digital Training	Cloud Billing and Support				
Knowledge Check	Cloud Billing and Support				
Recommended and Optional					
Lab	Sandbox				

aws academy

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e-mail: mims_grnoida@yahoo.co.in   Fax: 0120-2570546

Date: 15th March 2023

CIRCULAR

Dear Students,

We are delighted to inform you that our institute has signed a Memorandum of Understanding (MOU) with <u>M/S Seven Seas Services.</u>

<u>M/S Seven Seas Services</u> will conduct thirty sessions for more than one hour on " **Stress Management** " to our 3rd year students from **27th March 2023**. As per the MOU, a program will be conducted by their senior executives specifically for the students of the 6th semesters.

The course spans a total of thirty hours.

We request all interested students to register for this course and forward their expression of interest to pursue the above course in the annexed form for the records. We would like to emphasize that the course is entirely free of cost, and no fees shall be charged from the students to undertake this program.

We encourage you to avail of this opportunity to develop your personality and professional skills. We wish you all the best for your future endeavors.

Best wishes to all

Director
Director Mangalmay Institute of Engineering & Technology
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- ➤ All the faculty Members of the above programs
- ➤ Notice Board.

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Course Title: Stress Management

Course Duration: 30 hours (30 one-hour sessions)

Course Description: This course is designed to help participants understand the concept of stress, its impact on physical and mental health, and develop practical skills to manage and mitigate stress effectively. The course will explore various stress management techniques, coping strategies, and mindfulness practices to promote a balanced and healthy lifestyle.

Course Objectives: By the end of this course, participants will be able to:

1. Define stress and identify its causes and symptoms.
2. Understand the physiological and psychological effects of stress.
3. Apply stress management techniques to reduce and cope with stress.
4. Develop mindfulness and relaxation skills to promote mental well-being.
5. Create a personalized stress management plan.

Week 1: Introduction to Stress

- Session 1: Understanding Stress and Its Impact
- Session 2: Types of Stress
- Session 3: Recognizing Stressors

Week 2: Stress Physiology and Health

- Session 4: Stress and the Body
- Session 5: The Mind-Body Connection
- Session 6: Health Consequences of Chronic Stress

Week 3: Stress Management Techniques

- Session 7: Time Management and Organization
- Session 8: Problem-Solving and Decision-Making
- Session 9: Relaxation Techniques

Week 4: Coping Strategies

- Session 10: Cognitive Restructuring
- Session 11: Assertiveness and Communication Skills
- Session 12: Conflict Resolution

Week 5: Mindfulness and Meditation

- Session 13: Introduction to Mindfulness
- Session 14: Mindful Breathing and Meditation

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- Session 15: Mindfulness in Daily Life

Week 6: Physical Activity and Nutrition

- Session 16: The Importance of Exercise
- Session 17: Diet and Nutrition for Stress Management
- Session 18: Sleep and Stress

Week 7: Social Support and Relationships

- Session 19: Building and Maintaining Social Connections
- Session 20: Building Healthy Relationships
- Session 21: Supportive Networks

Week 8: Self-Care and Well-being

- Session 22: The Importance of Self-Care
- Session 23: Building a Self-Care Routine
- Session 24: Creative Outlets and Hobbies

Week 9: Developing a Stress Management Plan

- Session 25: Personalized Stress Management Plan
- Session 26: Setting Goals for Stress Reduction
- Session 27: Monitoring and Adapting the Plan

Week 10: Review and Application

- Session 28: Course Review and Q&A
- Session 29: Real-life Stress Management Scenarios
- Session 30: Final Assessment and Course Reflection

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Fax: 0120-2570546

Date – 01st March 2023,

Circular

We are pleased to inform you that our institute has partnered with "M/SHoneywell"to offer a two-month Add-On Program on "AWS Certified Cloud Practioner(CLF-C01)" exclusively for 8th Semester students of Computer Science, Artificial Intelligence, and Data Science. The program will be conducted by senior executives from "M/S Honeywell"and will cover various aspects of "AWS Certified Cloud Practioner(CLF-C01)" in line with the latest industry trends.

The program will commence on 22nd March 2023 and will be held on alternate days of the week as per the timetable. It will span a total of thirty hours, and best of all, it is entirely free of cost. We encourage all interested students to register for this course by submitting the expression of interest form attached to this circular.

Participating in this program will be a valuable experience and provide an opportunity to enhance your professional growth and develop your personality and professional skills. We believe this is an excellent chance for all students to expand their knowledge and abilities in the field of Cyber Security and Virtual Intelligence, which is becoming increasingly relevant in today's world.

Please find below the program details for your reference:

Program: Two-Month Add-On Program on "AWS Certified Cloud Practioner(CLF-C01)"
Duration: 32 added hours
Timings: Alternate days of the week as per the timetable Venue: Under the guidance and supervision of "M/S Honeywell"by their team of experts.

We kindly request all interested students to submit their expression of interest form at the earliest.

We wish you all the best for your future endeavors, and we hope you take full advantage of this opportunity.

Best wishes,

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Content outline:

Domain 1: Cloud Concepts

1.1 Define the AWS Cloud and its value proposition

1.2 Identify aspects of AWS Cloud economics

1.3 List the different cloud architecture design principles Domain

2: Security

2.1 Define the AWS Shared Responsibility model

2.2 Define AWS Cloud security and compliance concepts

2.3 Identify AWS access management capabilities

2.4 Identify resources for security support Domain

3: Technology

3.1 Define methods of deploying and operating in the AWS Cloud

3.2 Define the AWS global infrastructure

3.3 Identify the core AWS services 3.4 Identify resources for technology support Domain

4: Billing and Pricing

4.1 Compare and contrast the various pricing models for AWS

4.2 Recognize the various account structures in relation to AWS billing and pricing

4.3 Identify resources available for billing support

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Institutional Programme Brochure / Circular and Curriculum of Value Added Programs for Academic Session 2021-22

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Fax: 0120-2570546

Date: - 8-Nov- 2021

CIRCULAR

All the students of 1ˢᵗ Semester 1ˢᵗ year are informed that the institute has arranged a thirty hours and more Value Added Programme on "How to improve your Aesthetics and Personality".

The regular class sessions will start after Diwali from 15-Nov-2021 i.e. Monday at 03:00 PM onward.

The entire session will be held on alternate days on weekly basis and the slots shall be placed in the current time table. The classes will be organized by the external experts from "Seven seas Services", the industry professional with whom; the institute has signed MOU of this effect.

All students are requested to avail the opportunity and give a boost to their professional career growth.

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Course Outline:

Week 1: Introduction to Aesthetics and Personality Enhancement
- Understanding the importance of aesthetics and personality
- Identifying personal strengths and weaknesses

Week 2: Grooming and Personal Hygiene
- Skincare, haircare, and nail care
- Importance of good oral hygiene

Week 3: Dressing for Success
- Dressing appropriately for different occasions
- Understanding color coordination and style

Week 4: Body Language and Posture
- Developing a confident and attractive body language
- Understanding nonverbal communication

Week 5: Effective Communication
- Verbal and nonverbal communication skills
- Active listening and effective speaking

Week 6: Social Etiquette
- Understanding social etiquette and manners
- Applying etiquette to different social and professional situations

Week 7: Personal Branding
- Creating a personal brand that reflects personality and style
- Developing a personal brand statement

Week 8: Final Projects and Presentations
- Students will apply the knowledge and skills learned throughout the course to develop a personal aesthetics and personality enhancement plan.
- Students will present their plans to the class.

Assessment:
- Attendance and participation: 20%
- Quizzes and exams: 30%
- Assignments and projects: 30%
- Final project and presentation: 20%

Textbook:
- "The Art of Personal Style" by Elizabeth Rider

Supplementary Materials:
- "The Power of Body Language" by Joe Navarro
- "How to Win Friends and Influence People" by Dale Carnegie
- "Miss Manners' Guide to Excruciatingly Correct Behavior" by Judith Martin

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Date: - 06-sept 2021

CIRCULAR

All the students of 3rd semester, 2nd year are informed that the institute has arranged a thirty two hours and more Add-on Programme on "**Python and Its Principles**".

The regular class sessions will start from 20-sept-2021 i.e. Monday at 03:00 PM onward.
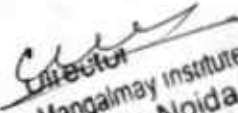
The entire session will be held on alternate days on weekly basis and the slots shall be placed in the current time table. The classes will be organized by the external experts from "**UP search**", the industry professional with whom the institute has signed MOU of this effect.

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Usage of PYTHON in Profession

Content

Hours: 35

Module	Topics
Module 1	History of Python, Need of Python Programming.
Module 2	Applications Basics of Python Programming Using the REPL(Shell)
Module 3	Running Python Scripts, Variables
Module 4	Assignment, Keywords, Input-Output, Indentation.
Module 5	Types - Integers, Strings, Booleans
Module 6	Operators- Arithmetic Operators, Comparison (Relational) Operators, Assignment Operators, Logical Operators, Bitwise Operators, Membership Operators, Identity Operators
Module 7	Expressions and order of evaluations Control Flow- if, if-elseif-else, for, while, break, continue, pass.
Module 8	Data Structures Lists- Operations
Module 9	Slicing, Methods; Tuples, Sets, Dictionaries
Module 10	Sequences, Comprehensions.
Module 11	Defining Functions, Calling Functions, Passing Arguments, Keyword Arguments, Default Arguments, Variable-length arguments, Anonymous Functions, Fruitful Functions(Function Returning Values)
Module 12	Scope of the Variables in a Functions-Global and local variables
Module 13	Modules: Creating modules, import statement, from. Import statement, name spacing
Module 14	Python packages Introduction to PIP, Installing Packages via PIP, Using Python Packages.
Module 15	Object Oriented Programming OOP in Python: Classes, 'self variable', Methods, Constructor Method, Inheritance, Overriding Methods, Datahiding
Module 16	Error and Exceptions: Difference between an error and Exception, Handling Exception, try except block, Raising Exceptions, User Defined Exceptions.
Module 17	Standard Library - Operating System Interface - String Pattern Matching, Mathematics, Internet Access, Dates and Times, Data Compression, Multithreading,GUI Programming, TurtleGraphics
Module 18	Testing: Why testing is required ?, Basic concepts of testing, Unit testing in Python, Writing Test cases, Running Tests.

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Date: - 06-sept-2021

CIRCULAR

All the students of 5th semester, 3rd year are informed that the institute has arranged a thirty four hours and more Add-on Programme on "**Uses of IoT in Industries**".

The regular class sessions will start from 20-Sept-2021 date at 3.00 PM onward.
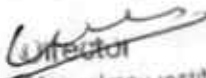
The entire session will be held on alternate days on weekly basis and the slots shall be placed in the current time table. The classes will be organized by the external experts from, "**Edunet**" the industry professional with whom the institute has signed MOU of this effect.

All students are requested to avail the opportunity and give a boost to their professional career growth.

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IOT SYLLABUS

Module	Topics
Module 1	The Internet- The network edge, the network core, recaps on Protocol layers and their service models
Module 2	Principles of Network applications: The Web and HTTP
Module 3	Peer to Peer applications.
Module 4	Transport layer services: Connectionless transport-UDP, Connection Oriented Transport-TCP,
Module 5	Principles of Reliable Data Transfer, Ethernet and LAN protocols.
Module 6	Application Protocols for IoT: , CoAP, MQTT, Modbus
Module 7	SCADA, Web Socket;
Module 8	IP-based protocols: 6LoWPAN, RPL;
Module 9	Authentication Protocols; IEEE 802.15.4
Module 10	Wi-Fi, Li-Fi, BLE.
Module 11	IoT Application Development,
Module 12	Introduction to Raspberry Pi/Any Sensor board
Module 13	Integrating Sensors and Actuators with Raspberry Pi,
Module 14	Pushing and Managing Data in IoT Clouds,
Module 15	Programming APIs (Python/Node.js/Arduino),
Module 16	A number of IoT Case study: Smart-Facilities Management, Healthcare, Environment Monitoring System.

Date:-06 -sept-2021

CIRCULAR

All the students of 7th semester, 4th year are informed that the institute has arranged a thirty eight hours and more Add-on Programme on "Full Stack Course In Java".

The regular class sessions will start from 29-Sept-2021 ie Wednesday at 3.00 PM onward.

The entire session will be held on alternate days on weekly basis and the slots shall be placed in the current time table. The classes will be organized by the external experts from "Edunet", the industry professional with whom the institute has signed MOU of this effect.

All students are requested to avail the opportunity and give a boost to their professional career growth.

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FULL STACK JAVA SYLLABUS

Module	Topics
Module 1	Introduction to HTML, Browsers and HTML
Module 2	Editor's Offline and Online, Tags, Attribute and Elements
Module 3	Doctype Element, Comments, Headings, Paragraphs, and Formatting Text
Module 4	Lists and Links, Images and Tables.
Module 5	Introduction CSS, Applying CSS to HTML
Module 6	Selectors, Properties and Values, CSS Colors and Backgrounds
Module 7	CSS Box Model, CSS Margins, Padding, and Borders, CSS Text and Font Properties, CSS General Topics.
Module 8	Introduction to JavaScript, Applying JavaScript (internal and external)
Module 9	Understanding JS Syntax, Introduction to Document and Window Object, Variables and Operators
Module 10	Data Types and Num Type Conversion Math and String Manipulation ,Objects and Arrays
Module 11	Date and Time,Conditional Statements,Switch Case, Looping in JS,Functions.
Module 12	Introduction,Templating using JSX,Components, State and Props,Lifecycle of Components
Module 13	Rendering List and Portals,Error HandlingRouters,Redux and Redux Saga
Module 14	Immutable.js,Service Side Rendering,Unit Testing,Webpack.
Module 15	Node js Overview,Node js - Basics and Setup
Module 16	Node js Console,Node js Command Utilities,Node js Modules
Module 17	Node js Concepts,Node js Events,Node js with Express js,Node js Database Access.

Date:- 09 may 2022

CIRCULAR

All the students of 2nd semester, 1st year are informed that the institute has arranged a thirty hours and more Add-on Programme on "Block Chain Management Techniques".

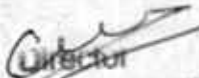The regular class sessions will start from 16-may -2022 i.e. Monday at 3.00 PM onward.

The entire session will be held on alternate days on weekly basis and the slots shall be placed in the current time table. The classes will be organized by the external experts from, "UP Search" the industry professional with whom the institute has signed MOU of this effect.

All students are requested to avail the opportunity and give a boost to their professional career growth.

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BLOCK CHAIN TECHNOLOGY

SYLLABUS

Module	Topics
Module 1	History, definition, features, types
Module 2	benefits of block chain and bit coin,
Module 3	Consensus, CAP theorem and block chain.
Module 4	Decentralization – methods, routes, smart contracts, platforms.
Module 5	Symmetric and Asymmetric cryptography
Module 6	Public and private keys
Module 7	theoretical foundations cryptography with practical examples.
Module 8	Introduction to financial markets, use cases for block chain technology in the financial sector
Module 9	Bitcoin, Transactions, Block chain, Bitcoin payments, technical concepts related to bitcoin cryptocurrency
Module 10	Smart Contracts, definition of smart contracts, Ricardian contracts, Oracles, and the theoretical aspects of smart contracts.
Module 11	Ethereum 101 - design and architecture of the Ethereum block chain.
Module 12	Various technical concepts related to the Ethereum block chain that explains the underlying principles
Module 13	features, and components of this platform in depth.
Module 14	Hyperledger – protocol and architecture
Module 15	Case studies on alternative Block chains

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Date: - 16-Feb-2022

CIRCULAR

All the students of 4th semester, 2nd year are informed that the institute has arranged a thirty hours and more Add-on Programme on "Cyber Security & Challenges".

The regular class sessions will start from 28-Feb-2022 date at 3.00 PM onward.

The entire session will be held on alternate days on weekly basis and the slots shall be placed in the current time table. The classes will be organized by the external experts from," **Cloud Kampus**", the industry professional with whom the institute has signed MOU of this effect.

All students are requested to avail the opportunity and give a boost to their professional career growth.

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CYBER SECURITY SYLLABUS

Module	Topics
Module 1	Introduction to Cyber Security -Introduction, Computer Security, Threats, Harm, Vulnerabilities, Controls, Authentication, Access Control and Cryptography.
Module 2	Web attack: Browser Attacks, Web Attacks Targeting Users, Obtaining User or Website Data, Email Attacks.
Module 3	Network Vulnerabilities: Overview of vulnerability scanning, Open Port / Service Identification, Banner /Version Check, Traffic Probe, Vulnerability Probe, Vulnerability Examples, OpenVAS, Metasploit
Module 4	Networks Vulnerability Scanning (Netcat, Socat), Network Sniffers and Injection tools
Module 5	Network Defense tools - Firewalls and Packet Filters: Firewall Basics, Packet Filter Vs Firewall, How a Firewall Protects a Network,
Module 6	Packet Characteristic to Filter, Stateless Vs Stateful Firewalls, Network Address Translation (NAT) and Port Forwarding.
Module 7	VPN: the basic of Virtual Private Networks
Module 8	Firewall: Introduction, Linux Firewall, Windows Firewall. Snort: Introduction Detection System.
Module 9	Web Application Tools -Scanning for web vulnerabilities tools: Nikto, W3af,
Module 10	HTTP utilities - Curl, Open SSL and S tunnel.
Module 11	Application Inspection tools – Zed Attack Proxy, Sqlmap, DVWA, Webgoat.
Module 12	Password Cracking and Brute-Force Tools: John the Ripper, L0htcrack, Pwdump, HTC-Hydra.
Module 13	Introduction to Cyber Crime- Law and Investigation Cyber Crimes, Types of Cybercrime, Hacking, Attack vectors, Cyberspace and Criminal Behavior, Clarification of Terms, Traditional Problems Associated with Computer Crime
Module 14	Introduction to Incident Response, Digital Forensics, Computer Language, Network Language, Realms of the Cyber world
Module 15	Internet crime and Act: A Brief History of the Internet, Recognizing and Defining Computer Crime, Contemporary Crimes, Computers as Targets, Contaminants and Destruction of Data, Indian IT ACT Page 3 of 23 2000.
Module 16	Firewalls and Packet Filters, password Cracking, Key loggers and Spyware, Virus and Warms, Trojan and backdoors, Steganography, DOS and DDOS attack, SQL injection, Buffer Overflow, Attack on wireless Networks.

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Date: - 07-March-2022

CIRCULAR

All the students of 6th semester, 3rd year are informed that the Institute has arranged a thirty hours and more Value Added Programme on "How to Manage EQ & IQ to Relieve Stress".

The regular class sessions will start from 23-March- 2022 i.e. Wednesday at 03.00 PM onward.

The entire session will be held on alternate days on weekly basis and the slots shall be placed in the current time table. The classes will be organized by the external experts from," **Seven Seas Services**" the industry professional with whom the Institute has signed MOU of this effect.

All students are requested to avail the opportunity and give a boost to their professional career growth.

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Course Outline: Module 1: Introduction to EQ and IQ

- Definition of EQ and IQ
- Understanding the relationship between EQ and IQ
- The impact of EQ and IQ on stress levels

Module 2: Understanding Emotional Intelligence (EQ)

- Understanding the five components of EQ
- Assessing personal EQ strengths and weaknesses
- Developing EQ strategies to reduce stress

Module 3: Understanding Intellectual Intelligence (IQ)

- Understanding the components of IQ
- Assessing personal IQ strengths and weaknesses
- Developing IQ strategies to reduce stress

Module 4: Balancing EQ and IQ

- Understanding the importance of balancing EQ and IQ
- Identifying personal tendencies to over-rely on EQ or IQ
- Developing a plan to balance EQ and IQ for stress reduction

Module 5: Implementing Strategies for Stress Reduction

- Applying EQ and IQ strategies to real-life situations
- Developing a personal stress reduction plan
- Evaluating progress and adjusting strategies as needed

Assessment:

- Self-assessment quizzes to evaluate personal EQ and IQ strengths and weaknesses
- Written reflection on personal stress reduction plan
- Final project: Develop and present a personal stress reduction plan that incorporates EQ and IQ strategies.

Grading:

- Self-assessment quizzes: 30%
- Written reflection: 30%
- Final project: 40%

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Date: - 16-Feb-2022

CIRCULAR

All the students of 8th semester, 4th year are informed that the institute has arranged a thirty hours and more Add-on Program on "Artificial Intelligence & Scope".

The regular class sessions will start from 28-Feb-2022 date at 3.00 PM onward.

The entire session will be held on alternate days on weekly basis and the slots shall be placed in the current time table. The classes will be organized by the external experts from, "Cloud Kampus", the industry professional with whom the institute has signed MOU of this effect.

All students are requested to avail the opportunity and give a boost to their professional career growth.

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Greater Noida (U.P.)-201310
(College Code-788

ARTIFICIAL INTELLIGENCE FOR ROBOTICS

Content

Total 30 Hours

Module	Topics
Module 1	Overview: Robotics introduction, historical perspective on AI and Robotics,
Module 2	Uncertainty in Robotics Reinforcement Learning: Basic overview, examples, elements,
Module 3	Tabular Solution Methods - Multiarmed bandits, Finite Markov decision process
Module 4	Dynamic programming (Policy Evaluation, Policy Iteration, Value Iteration),
Module 5	Monte Carlo Methods, Temporal-Difference Learning (Q-learning, SARSA)
Module 6	Approximate Solution Methods - On-policy Prediction with Approximation,
Module 7	Value function approximation, Non-linear function approximation,
Module 8	Reinforcement Learning in robotics, Recursive state estimation: Robot Environment Interaction, Bayes filters
Module 9	Gaussian filters – The Kalman filter, The Extended Kalman Filter, The information filter
Module 10	The particle filter Robot motion: Velocity Motion Model, Odometry Motion Model, Motion and maps.
Module 11	Measurement: Beam Models of Range Finders,
Module 12	Likelihood Fields for Range Finders,
Module 13	CorrelationBased Sensor Models,
Module 14	Feature-Based Sensor Models
Module 15	Overview of POMDP.

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Institutional Programme Brochure / Circular and Curriculum of Value Added Programs for Academic Session 2020-21

Mangalmay Institute of Engineering & Technology

AN INSTITUTION OF MANGALMAY FOUNDATION TRUST

Campus: B, Knowledge Park-II, Greater Noida (U.P.)   Ph.: 0120-2320400, 2320401
Institution office: C-116, Sector-39, Noida-201301 (U.P.)   Ph.: 0120-2500381, 2572237
e-mail: mims_grnoida@yahoo.co.in   Fax: 0120-2570546

Date:- 20th January 2021

CIRCULAR

All the students of 1st year 1st Semester are hereby informed that a two months equal to thirty hours Value Added programme will be commenced from 03rd February 2021 in the institute. The name of the programme is "Corporate Leadership & Traits" in online mode.

These sessions will be held on alternate days in a week as per the scheduled time according to the slots mentioned in the time table of the class.

Please join on **Microsoft teams Attendance mandatory**

We are delighted to inform that we have entered into a MOU with M/S "Vardhman Recruiters" and their senior executives have consented to conduct these sessions for the benefits of our students.

All students are requested to avail the opportunity and give a boost to their professional career growth.

Please fill the attached expression of interest form to confirm your willingness to join the course.

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Greater Noida (U.P.)-201310
College Code-786

Course Outline:

Week 1: Introduction to Corporate Leadership

- Definition of corporate leadership and its role in modern organizations
- Historical perspective on corporate leadership
- Different types of corporate leadership styles and traits

Week 2: Ethical Leadership and Corporate Social Responsibility

- Understanding the importance of ethical leadership and corporate social responsibility
- Identifying ethical challenges faced by corporate leaders
- Strategies for promoting ethical behavior in the workplace

Week 3: Building and Leading High-Performing Teams

- Understanding the importance of teamwork in achieving organizational goals
- Strategies for building and leading high-performing teams
- Techniques for effective team communication and collaboration

Week 4: Managing Conflict and Fostering Innovation

- Understanding the nature of conflict in corporate settings
- Techniques for managing conflict and fostering innovation
- Creating a culture of innovation in the workplace

Week 5: Creating a Positive Work Environment and Promoting Employee Engagement

- The role of leadership in creating a positive work environment
- Strategies for promoting employee engagement and motivation
- Techniques for effective feedback and recognition

Assessment and Grading:

- Class Participation and Attendance: 10%
- Group Project: 30%
- Mid-term Exam: 30%
- Final Exam: 30%

Textbook:

- "The Art of Possibility: Transforming Professional and Personal Life" by Rosamund Stone Zander and Benjamin Zander
- "The Five Dysfunctions of a Team: A Leadership Fable" by Patrick Lencioni
- "The 7 Habits of Highly Effective People" by Stephen R. Covey

Director
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Greater Noida (U.P.) 201310
Knowledge Park

Date:-9th December 2020

CIRCULAR

All the students of 2nd year 3rd semester are hereby informed that a two months equal to thirty six hours Add on programme will be commenced from 14th December 2020 in the Institute. The name of the programme is "Importance of Python and Its Usages" in online mode.

These sessions will be held on alternate days in a week as per the scheduled time according to the slots mentioned in the time table of the class.

Please join on **Microsoft teams Attendance mandatory**

We are delighted to inform that we have entered into a MOU with M/S **ACTERM** and their senior executives have consented to conduct these sessions for the benefits of our students.

All students are requested to avail the opportunity and give a boost to their professional career growth.

Please fill the attached expression of Interest form to confirm your willingness to join the course.

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Mangalmay Institute of Engineering & Technology
Greater Noida (U.P.)-201310
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Usage of PYTHON in Profession

Content

Hours: 35

Module	Topics
Module 1	History of Python, Need of Python Programming.
Module 2	Applications Basics of Python Programming Using the REPL(Shell)
Module 3	Running Python Scripts, Variables
Module 4	Assignment, Keywords, Input-Output, Indentation.
Module 5	Types - Integers, Strings, Booleans
Module 6	Operators- Arithmetic Operators, Comparison (Relational) Operators, Assignment Operators, Logical Operators, Bitwise Operators, Membership Operators, Identity Operators
Module 7	Expressions and order of evaluations Control Flow- if, if-elseif-else, for, while, break, continue, pass.
Module 8	Data Structures Lists- Operations
Module 9	Slicing, Methods; Tuples, Sets, Dictionaries
Module 10	Sequences, Comprehensions.
Module 11	Defining Functions, Calling Functions, Passing Arguments, Keyword Arguments, Default Arguments, Variable-length arguments, Anonymous Functions, Fruitful Functions(Function Returning Values)
Module 12	Scope of the Variables in a Functions-Global and local variables
Module 13	Modules: Creating modules, import statement, from. Import statement, name spacing
Module 14	Python packages Introduction to PIP, Installing Packages via PIP, Using Python Packages.
Module 15	Object Oriented Programming OOP in Python: Classes, 'self variable', Methods, Constructor Method, Inheritance, Overriding Methods, Datahiding
Module 16	Error and Exceptions: Difference between an error and Exception, Handling Exception, try except block, Raising Exceptions, User Defined Exceptions.
Module 17	Standard Library - Operating System Interface - String Pattern Matching, Mathematics, Internet Access, Dates and Times, Data Compression, Multithreading,GUI Programming, TurtleGraphics
Module 18	Testing: Why testing is required ?, Basic concepts of testing, Unit testing in Python, Writing Test cases, Running Tests.

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e-mail: mims_grnoida@yahoo.co.in Fax: 0120-2570546

Date:- 9th December 2020

CIRCULAR

All the students of 3rd year 5th semester are informed that the institute has arranged a thirty hours Value Added Programme on "**Magic of Big Thinking**" in online mode.

The regular class sessions would start from **14th December 2020** at 03:00 PM onward on **Microsoft teams.**

The entire session would be held on alternate days on weekly basis and the slots shall be placed in the current time table. The classes will be organized by the external experts of **UR Services** the industry professional with whom the institute has signed MOU of this effect.

All students are requested to avail the opportunity and give a boost to their professional career growth.

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Course Goals and Objectives:

Course Outline:

Week 1: Introduction to The Magic of Thinking Big

- Overview of the course and its goals
- The power of positive thinking
- Overcoming negative self-talk

Week 2: Goal Setting and Planning for Success

- Setting achievable goals
- Creating a plan for success
- Time management and prioritization

Week 3: Visualization and Affirmations

- Using visualization to achieve your dreams
- Crafting effective affirmations
- The role of imagination in success

Week 4: Managing Fear and Anxiety

- Understanding fear and anxiety
- Strategies for managing fear and anxiety
- Developing resilience and learning from failure

Week 5: Communication and Building Relationships

- Effective communication skills
- Building strong relationships
- The role of networking in success

Week 6: Applying The Magic of Thinking Big

- Applying the principles of The Magic of Thinking Big to personal and professional goals
- Review of course content and final reflections

Course Materials:

- The Magic of Thinking Big by David J. Schwartz
- Course readings and handouts
- Online resources and videos

Assessment:

- Participation in class discussions and activities (20%)
- Written assignments and exercises (40%)
- Final project applying the principles of The Magic of Thinking Big (40%)

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e-mail: mims_grnoida@yahoo.co.in   Fax: 0120-2570546

Date :- 9th December 2020

CIRCULAR

All the students of 4th year 7th Semester are informed that the institute has arranged a thirty two hours Add on Programme on "Cyber Security & Protection"in online mode.

The regular class sessions would start from 21st December 2020 at 03:00 PM onwardon Microsoft teams online platform.

The entire session would be held on alternate days on weekly basis and the slots shall be placed in the current time table. The classes will be organized by the external experts of ACTERM the industry professional with whom the institute has signed MOU of this effect.

All students are requested to avail the opportunity and give a boost to their professional career growth.

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CYBER SECURITY SYLLABUS

Hours: 32

Module	Topics
Module 1	Introduction to Cyber Security -Introduction, Computer Security, Threats, Harm, Vulnerabilities, Controls, Authentication, Access Control and Cryptography.
Module 2	Web attack: Browser Attacks, Web Attacks Targeting Users, Obtaining User or Website Data, Email Attacks.
Module 3	Network Vulnerabilities: Overview of vulnerability scanning, Open Port / Service Identification, Banner /Version Check, Traffic Probe, Vulnerability Probe, Vulnerability Examples, OpenVAS, Metasploit
Module 4	Networks Vulnerability Scanning (Netcat, Socat), Network Sniffers and Injection tools
Module 5	Network Defense tools - Firewalls and Packet Filters: Firewall Basics, Packet Filter Vs Firewall, How a Firewall Protects a Network,
Module 6	Packet Characteristic to Filter, Stateless Vs Stateful Firewalls, Network Address Translation (NAT) and Port Forwarding.
Module 7	VPN: the basic of Virtual Private Networks
Module 8	Firewall: Introduction, Linux Firewall, Windows Firewall. Snort: Introduction Detection System.
Module 9	Web Application Tools -Scanning for web vulnerabilities tools: Nikto, W3af,
Module 10	HTTP utilities - Curl, Open SSL and S tunnel.
Module 11	Application Inspection tools – Zed Attack Proxy, Sqlmap, DVWA, Webgoat.
Module 12	Password Cracking and Brute-Force Tools: John the Ripper, L0htcrack, Pwdump, HTC-Hydra.
Module 13	Introduction to Cyber Crime- Law and Investigation Cyber Crimes, Types of Cybercrime, Hacking, Attack vectors, Cyberspace and Criminal Behavior, Clarification of Terms, Traditional Problems Associated with Computer Crime
Module 14	Introduction to Incident Response, Digital Forensics, Computer Language, Network Language, Realms of the Cyber world
Module 15	Internet crime and Act: A Brief History of the Internet, Recognizing and Defining Computer Crime, Contemporary Crimes, Computers as Targets, Contaminants and Destruction of Data, Indian IT ACT Page 3 of 23 2000.
Module 16	Firewalls and Packet Filters, password Cracking, Key loggers and Spyware, Virus and Warms, Trojan and backdoors, Steganography, DOS and DDOS attack, SQL injection, Buffer Overflow, Attack on wireless Networks.

Date :- 21ˢᵗ June 2021

CIRCULAR

All the students of 1ˢᵗ year 2ⁿᵈ semester are informed that the institute has arranged a thirty hours Add on Programme on "C+ Advance Level" in online mode.

The regular class sessions would start from 5ᵗʰ July 2021 at 03:00 PM onward on Microsoft teams.

The entire session would be held on alternate days on weekly basis and the slots shall be placed in the current time table. The classes will be organized by the external experts of SUCCEED Learner (GEH Research) the industry professional with whom the institute has signed MOU of this effect.

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C/C++ SYLLABUS

Total Time:36 Hours

Module	Topics
Module 1	I. Introduction to Program & Programming A. Definition of a Computer Program B. Definition of Computer Programming and Algorithms

Module 2	C. Basic Program Control Structures
	    1. Sequence
	    2. Condition(Selection)
	    3. Loop(Repetition)

Module 3	II. Program Elements of C/C++ Language A. Identifiers & Naming Conventions B. Operators & Their Precedence 1. Arithmetic 2. Relational & Logical 3. Bitwise
Module 4	C. Data Types in C/C++ D. Constants & Variables

Module 5	E. Program Statements/Functions
	    1. Basic Input & Output
	      a. printf()/cout
	      b. scanf()/cin
	Simple(Sequential Conditional)

Module 6	2. Repetitive C/C++ Built-in Functions

Module 7	F. Structure of a C/C++ Program
	G. Programming Paradigms and Software Design Techniques/
	Methodologies
	    1. Spaghetti Coding
	    2. Modular Design
	    3. Object-Oriented Programming (OOP)
	    4. Rapid Application Development (RAD)

Module 8	III. Program Development (Life) Cycle
	A. Pre-Programming Phase
	    1. Problem Identification/ Definition/Specification.
	2. Problem Analysis
	      a. Specification of Output, Input and Processes Required

Module 9	3. Formulation of the Algorithm 4. Program Design (Development of Pseudo-code, Flowchart, Decision Table, and/or Hierarchy Chart
Module 10	B. Programming Phase Writing the Program Code C. Post Programming Phase Testing & Debugging 1. Documentation

	a. Technical
	b. Non-Technical
Module 11	**IV. Introduction to C/C++ Programming and Its Environment.**
	A. Formal Introduction to Turbo/Borland C/C++ IDE
	B. Syntax in Declaring a Variable in C/C++
Module 12	C. The Preprocessor Directives
	1. #include
	#define
	D. The Global Declarations
	1. Global Variables
	User-Defined Functions
Module 13	
	E. The main() function
	F. Syntaxes in Declaring, Defining and Calling a Function
	G. Passing parameters (arguments) to a function.
Module 14	H. The Exit statement.
	I. Scope of Variables and Rules of Scope.
	J. The Available String and Math Functions in C/C++
Module 15	V. Introduction to Arrays
	A. Defining an Array.
	B. Examples Using Arrays.
Module 16	C. Sorting Arrays.
	D. Searching Arrays.
Module 17	E. Declaring an Array.
	F. Passing Arrays to Functions.
Module 18	G. Basic Sorting Techniques.
	H. Multi-dimensional Arrays

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e-mail: mims_grnoida@yahoo.co.in   Fax: 0120-2570546

Date: -25th August 2021

CIRCULAR

All the students of 2nd year 4th semester are informed that the institute has arranged a thirty hours Add on Programme on "Multiple Usages of Block Chain" in online modein online mode.

The regular class sessions would start from 6th September 2021 at 03:00 PM onward on Microsoft teams.
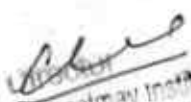
The entire session would be held on alternate days on weekly basis and the slots shall be placed in the current time table. The classes will be organized by the external experts ofM/S ACTERM the industry professional with whom the institute has signed MOU of this effect.

All students are requested to avail the opportunity and give a boost to their professional career growth.

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BLOCK CHAIN TECHNOLOGY

SYLLABUS

Module	Topics
Module 1	History, definition, features, types
Module 2	benefits of block chain and bit coin,
Module 3	Consensus, CAP theorem and block chain.
Module 4	Decentralization – methods, routes, smart contracts, platforms.
Module 5	Symmetric and Asymmetric cryptography
Module 6	Public and private keys
Module 7	theoretical foundations cryptography with practical examples.
Module 8	Introduction to financial markets, use cases for block chain technology in the financial sector
Module 9	Bitcoin, Transactions, Block chain, Bitcoin payments, technical concepts related to bitcoin cryptocurrency
Module 10	Smart Contracts, definition of smart contracts, Ricardian contracts, Oracles, and the theoretical aspects of smart contracts.
Module 11	Ethereum 101 - design and architecture of the Ethereum block chain.
Module 12	Various technical concepts related to the Ethereum block chain that explains the underlying principles
Module 13	features, and components of this platform in depth.
Module 14	Hyperledger – protocol and architecture
Module 15	Case studies on alternative Block chains

Date :-15th September 2021

CIRCULAR

All the students of 3rd year 6th semester are informed that the Institute has arranged a thirty four hours Add on Programme on "Importance of Amazon Web Services" in online mode

The regular class sessions would start from 22nd September 2021 at 3.00 PM onward on Microsoft teams.

The entire session would be held on alternate days on weekly basis and the slots shall be placed in the current time table. The classes will be organized by the external experts of "ACTERM" the industry professional with whom the institute has signed MOU of this effect.

All students are requested to avail the opportunity and give a boost to their professional career growth.

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AWS CLOUD SYLLABUS

Module	Topics
Module 1	Fundamentals of Cloud Computing, Introduction to Cloud Computing
Module 2	Cloud Environment Architecture,
Module 3	Cloud Computing Models.
Module 4	Infrastructure & Networking – Introduction to Amazon Web Services, AWS Global Infrastructure
Module 5	Introduction to Network Switches & Virtual Private Cloud, VPC & Subnets, Internet Gateways, VPC Peering & NAT Gateways, IP Addressing in AWS,
Module 6	Understanding AWS Security Groups, Launching our first EC2 instance ,EC2 instance types & Pricing Models.
Module 7	Storage –Introduction to Block & Object storage mechanism ,
Module 8	Introduction to Elastic Block Store - EBS , EBS Snapshots , EBS Volume Types ,Instance Store Volumes
Module 9	Introduction to Simple Storage Service (S3) . Features of S3.
Module 10	Elastic Load Balancers - Understanding High Availability Configuration,
Module 11	ELB Configuration Elasticity ,Auto Scaling.
Module 12	Identity & Access Management – Understanding the IAM Policies, IAM User, IAM Policy and IAM Role,
Module 13	Relational Databases
Module 14	Introduction to Relational Databases,
Module 15	Creating our first database structure in MySQL,
Module 16	Getting started with Dynamo DB.

Date :- 29th September 2021

CIRCULAR

All the students of 4th year 8th semester are informed that the institute has arranged a thirty hours Add on Programme on "Usages of Artificial Intelligence in Industry" in online mode.

The regular class sessions would start from 6th October 2021 at 03:00 PM onward on Microsoft teams.

The entire session would be held on alternate days on weekly basis and the slots shall be placed in the current time table. The classes will be organized by the external experts of "SUCCEED Learner (GEH Research)" the industry professional with whom the institute has signed MOU of this effect.

All students are requested to avail the opportunity and give a boost to their professional career growth.

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ARTIFICIAL INTELLIGENCE FOR ROBOTICS

Content

Total 30 Hours

Module	Topics
Module 1	Overview: Robotics introduction, historical perspective on AI and Robotics,
Module 2	Uncertainty in Robotics Reinforcement Learning: Basic overview, examples, elements,
Module 3	Tabular Solution Methods - Multiarmed bandits, Finite Markov decision process
Module 4	Dynamic programming (Policy Evaluation, Policy Iteration, Value Iteration),
Module 5	Monte Carlo Methods, Temporal-Difference Learning (Q-learning, SARSA)
Module 6	Approximate Solution Methods - On-policy Prediction with Approximation,
Module 7	Value function approximation, Non-linear function approximation,
Module 8	Reinforcement Learning in robotics, Recursive state estimation: Robot Environment Interaction, Bayes filters
Module 9	Gaussian filters – The Kalman filter, The Extended Kalman Filter, The information filter
Module 10	The particle filter Robot motion: Velocity Motion Model, Odometry Motion Model, Motion and maps.
Module 11	Measurement: Beam Models of Range Finders,
Module 12	Likelihood Fields for Range Finders,
Module 13	CorrelationBased Sensor Models,
Module 14	Feature-Based Sensor Models
Module 15	Overview of POMDP.

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Institutional Programme Brochure / Circular and Curriculum of Value Added Programs for Academic Session 2019-20

Mangalmay Institute of Engineering & Technology

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e-mail: mims_grnoida@yahoo.co.in   Fax: 0120-2570546

Date: -18th September 2019

CIRCULAR

We are delighted to inform all students of 1st year 1st semester that a two months equal to thirty hours Value Added programme will be commenced from 25th September 2019 in the institute. The name of the programme is "How to Turn Your Defeat into Victory".

Please note for the convenience of the students, these sessions will be held on alternate days in a week as per the scheduled time according to the slots mentioned in the time table of the class.

Please further be noted that these sessions will be conducted by industry experts ofM/S ACTERM with whom the institute has entered into an agreement through a proper MOU. The name of the organization under whose aegis these sessions will be commenced is as follows.

All students are requested to avail the opportunity and give a boost to their professional career growth.

Please fill the attached expression of interest form to confirm your willingness to join the course..

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Course Outline:

Week 1: Introduction to Defeat and Victory

- Defining defeat and victory
- Understanding the impact of defeat on mental health and well-being
- Examining the psychological and emotional effects of victory

Week 2: Mindset and Resilience

- Analyzing the relationship between mindset and resilience
- Developing a growth mindset
- Building mental toughness and resilience

Week 3: Self-Reflection and Goal-Setting

- Using self-reflection to understand the causes of defeat
- Setting realistic and achievable goals
- Creating a roadmap for achieving goals

Week 4: Problem-Solving and Decision-Making

- Applying problem-solving strategies to overcome obstacles
- Making effective decisions in the face of uncertainty
- Utilizing critical thinking to evaluate options and make informed choices

Week 5: Communication and Conflict Resolution

- Understanding the importance of communication in building positive relationships
- Applying conflict resolution techniques to overcome interpersonal challenges
- Developing effective communication skills for success

Week 6: Turning Defeat into Victory
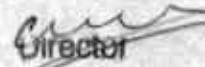
- Applying the concepts and techniques learned in the course to real-life scenarios
- Celebrating successes and reflecting on lessons learned
- Creating a plan for continuing personal growth and development beyond the course.

Assessment:

- Weekly quizzes (20%)
- Participation in class discussions (20%)
- Written assignments (40%)
- Final project (20%) - Students will develop a personal plan for turning defeat into victory in a specific area of their lives and present it to the class. The plan should include

strategies for overcoming obstacles, achieving goals, and building resilience and mental toughness

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Date: - 21st August 2019

CIRCULAR

We are delighted to inform all students of 2nd year 3rd semester that a thirty four hours Add – On program will be commenced from 02nd September 2019 in the institute. The name of the programme is "Usage of Python in Profession".

Please note for the convenience of the students, these sessions will be held on alternate days in a week as per the scheduled time according to the slots mentioned in the time table of the class.

Please further be noted that these sessions will be conducted by industry experts of M/S Seven Seas Services with whom the institute has entered into an agreement through a proper MOU. The name of the organization under whose aegis these sessions will be commenced is as follows.

All students are requested to avail the opportunity and give a boost to their professional career growth.

Please fill the attached expression of interest form to confirm your willingness to join the course.

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Usage of PYTHON in Profession

Content

Hours: 35

Module	Topics
Module 1	History of Python, Need of Python Programming.
Module 2	Applications Basics of Python Programming Using the REPL(Shell)
Module 3	Running Python Scripts, Variables
Module 4	Assignment, Keywords, Input-Output, Indentation.
Module 5	Types - Integers, Strings, Booleans
Module 6	Operators- Arithmetic Operators, Comparison (Relational) Operators, Assignment Operators, Logical Operators, Bitwise Operators, Membership Operators, Identity Operators
Module 7	Expressions and order of evaluations Control Flow- if, if-elseif-else, for, while, break, continue, pass.
Module 8	Data Structures Lists- Operations
Module 9	Slicing, Methods; Tuples, Sets, Dictionaries
Module 10	Sequences, Comprehensions.
Module 11	Defining Functions, Calling Functions, Passing Arguments, Keyword Arguments, Default Arguments, Variable-length arguments, Anonymous Functions, Fruitful Functions(Function Returning Values)
Module 12	Scope of the Variables in a Functions-Global and local variables
Module 13	Modules: Creating modules, import statement, from. Import statement, name spacing
Module 14	Python packages Introduction to PIP, Installing Packages via PIP, Using Python Packages.
Module 15	Object Oriented Programming OOP in Python: Classes, 'self variable', Methods, Constructor Method, Inheritance, Overriding Methods, Datahiding
Module 16	Error and Exceptions: Difference between an error and Exception, Handling Exception, try except block, Raising Exceptions, User Defined Exceptions.
Module 17	Standard Library - Operating System Interface - String Pattern Matching, Mathematics, Internet Access, Dates and Times, Data Compression, Multithreading,GUI Programming, TurtleGraphics
Module 18	Testing: Why testing is required ?, Basic concepts of testing, Unit testing in Python, Writing Test cases, Running Tests.

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Mangalmay Institute of Engineering & Technology

Date:- 21st August 2019

CIRCULAR

We are delighted to inform all students of 3rd year 5th Sem that a two months equal to thirty two hours will be commenced Add – On Programme from 02nd September 2019 in the institute. The name of the programme is "How Block Chain Works in Industry".
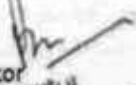
Please note for the convenience of the students, these sessions will be held on alternate days in a week as per the scheduled time according to the slots mentioned in the time table of the class.

Please further be noted that these sessions will be conducted by industry experts from "UR Services" with whom the institute has entered into an agreement through a proper MOU. The name of the organization under whose aegis these sessions will be commenced is as follows.

All students are requested to avail the opportunity and give a boost to their professional career growth.

Please fill the attached expression of interest form to confirm your willingness to join the course.

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➢ Notice Board.

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How Block chain works in Industry

SYLLABUS

Duration 30 hr.

2 Credits

Module	Topics
Module 1	History, definition, features, types
Module 2	benefits of block chain and bit coin,
Module 3	Consensus, CAP theorem and block chain.
Module 4	Decentralization – methods, routes, smart contracts, platforms.
Module 5	Symmetric and Asymmetric cryptography
Module 6	Public and private keys
Module 7	theoretical foundations cryptography with practical examples.
Module 8	Introduction to financial markets, use cases for block chain technology in the financial sector
Module 9	Bitcoin, Transactions, Block chain, Bitcoin payments, technical concepts related to bitcoin cryptocurrency
Module 10	Smart Contracts, definition of smart contracts, Ricardian contracts, Oracles, and the theoretical aspects of smart contracts.
Module 11	Ethereum 101 - design and architecture of the Ethereum block chain.
Module 12	Various technical concepts related to the Ethereum block chain that explains the underlying principles
Module 13	features, and components of this platform in depth.
Module 14	Hyperledger – protocol and architecture
Module 15	Case studies on alternative Block chains

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e-mail: mims_grnoida@yahoo.co.in   Fax: 0120-2570546

Date:-14th August 2019

CIRCULAR

We are delighted to inform all students of 4th year 7th semester that of thirty four hours will be commenced Add – On Programme from 20th August 2019 in the institute. The name of the programme is "Misuse of Cyber Applications and Protections".

Please note for the convenience of the students, these sessions will be held on alternate days in a week as per the scheduled time according to the slots mentioned in the time table of the class.

Please further be noted that these sessions will be conducted by industry experts of ACTERM with whom the institute has entered into an agreement through a proper MOU. The name of the organization under whose aegis these sessions will be commenced is as follows.

All students are requested to avail the opportunity and give a boost to their professional career growth.

Please fill the attached expression of Interest form to confirm your willingness to join the course..

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Content
Misuse of Cyber Applications and Protections

Time : 32 hours

Module	Topics
Module 1	Introduction to Cyber Security -Introduction, Computer Security, Threats, Harm, Vulnerabilities, Controls, Authentication, Access Control and Cryptography.
Module 2	Web attack: Browser Attacks, Web Attacks Targeting Users, Obtaining User or Website Data, Email Attacks.
Module 3	Network Vulnerabilities: Overview of vulnerability scanning, Open Port / Service Identification, Banner /Version Check, Traffic Probe, Vulnerability Probe, Vulnerability Examples, OpenVAS, Metasploit
Module 4	Networks Vulnerability Scanning (Netcat, Socat), Network Sniffers and Injection tools
Module 5	Network Defense tools - Firewalls and Packet Filters: Firewall Basics, Packet Filter Vs Firewall, How a Firewall Protects a Network.
Module 6	Packet Characteristic to Filter, Stateless Vs Stateful Firewalls, Network Address Translation (NAT) and Port Forwarding.
Module 7	VPN: the basic of Virtual Private Networks
Module 8	Firewall: Introduction, Linux Firewall, Windows Firewall. Snort: Introduction Detection System.
Module 9	Web Application Tools -Scanning for web vulnerabilities tools: Nikto, W3af.
Module 10	HTTP utilities - Curl, Open SSL and S tunnel.
Module 11	Application Inspection tools – Zed Attack Proxy, Sqlmap, DVWA, Webgoat.
Module 12	Password Cracking and Brute-Force Tools: John the Ripper, L0htcrack, Pwdump, HTC-Hydra.
Module 13	Introduction to Cyber Crime- Law and Investigation Cyber Crimes, Types of Cybercrime, Hacking, Attack vectors, Cyberspace and Criminal Behavior, Clarification of Terms, Traditional Problems Associated with Computer Crime
Module 14	Introduction to Incident Response, Digital Forensics, Computer Language, Network Language, Realms of the Cyber world
Module 15	Internet crime and Act: A Brief History of the Internet, Recognizing and Defining Computer Crime, Contemporary Crimes, Computers as Targets, Contaminants and Destruction of Data, Indian IT ACT Page 3 of 23 2000.
Module 16	Firewalls and Packet Filters, password Cracking, Key loggers and Spyware, Virus and Warms, Trojan and backdoors, Steganography, DOS and DDOS attack, SQL injection, Buffer Overflow, Attack on wireless Networks.

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Institution office C-116, Sector 39, Noida 201303 (U.P.)   Ph 0120-2500381, 2572237
email miet.grnoida@yahoo.co.in   Fax 0120-2520546

Date: - 17th February 2020

CIRCULAR

All the students of 1st year 2nd semester are informed that the institute has arranged a thirty hours Add-on Programme on "**Advance C/C++**".

The regular class sessions would start from 26th February 2020 at 03:00 PM onward.
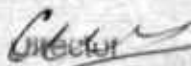
The entire session would be held on alternate days on weekly basis and the slots shall be placed in the current time table. The classes will be organized by the external experts of M/S Study Buds professional with whom the institute has signed MOU of this effect.

All students are requested to avail the opportunity and give a boost to their professional career growth.

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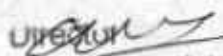
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Advance C/C++ SYLLABUS

Total Time: 30 Hours

Module	Topics
Module 1	I. Introduction to Program & Programming A. Definition of a Computer Program B. Definition of Computer Programming and Algorithms

Module 2	C. Basic Program Control Structures
	    1. Sequence
	    2. Condition(Selection)
	    3. Loop(Repetition)

Module 3	II. Program Elements of C/C++ Language
	  A. Identifiers & Naming Conventions
	  B. Operators & Their Precedence
	  1. Arithmetic
	  2. Relational & Logical
	  3. Bitwise

Module 4	C. Data Types in C/C++ D. Constants & Variables

Module 5	E. Program Statements/Functions
	    1. Basic Input & Output
	      a. printf()/cout
	      b. scanf()/cin
	Simple(Sequential Conditional)

Module 6	2. Repetitive C/C++ Built-in Functions

Module 7	F. Structure of a C/C++ Program
	G. Programming Paradigms and Software Design Techniques/ Methodologies
	    1. Spaghetti Coding
	    2. Modular Design
	    3. Object-Oriented Programming (OOP)
	    4. Rapid Application Development (RAD)

Module 8	III. Program Development (Life) Cycle
	A. Pre-Programming Phase
	    1. Problem Identification/ Definition/Specification.
	2. Problem Analysis
	      a. Specification of Output, Input and Processes Required

Module 9	3. Formulation of the Algorithm 4. Program Design (Development of Pseudo-code, Flowchart, Decision Table, and/or Hierarchy Chart
Module 10	B. Programming Phase Writing the Program Code C. Post Programming Phase Testing & Debugging 1. Documentation

	a. Technical
	b. Non-Technical
Module 11	IV. Introduction to C/C++ Programming and Its Environment.
	A. Formal Introduction to Turbo/Borland C/C++ IDE
	B. Syntax in Declaring a Variable in C/C++
Module 12	C. The Preprocessor Directives
	1. #include
	#define
	D. The Global Declarations
	1. Global Variables
	User-Defined Functions
Module 13	E. The main() function
	F. Syntaxes in Declaring, Defining and Calling a Function
	G. Passing parameters (arguments) to a function.
Module 14	H. The Exit statement.
	I. Scope of Variables and Rules of Scope.
	J. The Available String and Math Functions in C/C++
Module 15	V. Introduction to Arrays
	A. Defining an Array.
	B. Examples Using Arrays.
Module 16	C. Sorting Arrays.
	D. Searching Arrays.
Module 17	E. Declaring an Array.
	F. Passing Arrays to Functions.
Module 18	G. Basic Sorting Techniques.
	H. Multi-dimensional Arrays

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e-mail: mims_grnoida@yahoo.co.in Fax: 0120-2570546

Date: -10th Feb 2020

CIRCULAR

We are delighted to inform all students of 2nd year 4th sem.that two months equal to thirty two hours will be commenced Add – On Programme from 19th February 2020 in the institute. The name of the programme is "Cyber Security and Challenges".

Please note for the convenience of the students, these sessions will be held on alternate days in a week as per the scheduled time according to the slots mentioned in the time table of the class.

Please further be noted that these sessions will be conducted by industry experts of M/S ACTERM with whom the institute has entered into an agreement through a proper MOU. The name of the organization under whose aegis these sessions will be commenced is as follows.

All students are requested to avail the opportunity and give a boost to their professional career growth.

Please fill the attached expression of interest form to confirm your willingness to join the course..

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Director.... ....o4a-788

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Content
Cyber Securities & Challenges

Time : 32 hours

Module	Topics
Module 1	Introduction to Cyber Security -Introduction, Computer Security, Threats, Harm, Vulnerabilities, Controls, Authentication, Access Control and Cryptography.
Module 2	Web attack: Browser Attacks, Web Attacks Targeting Users, Obtaining User or Website Data, Email Attacks.
Module 3	Network Vulnerabilities: Overview of vulnerability scanning, Open Port / Service Identification, Banner /Version Check, Traffic Probe, Vulnerability Probe, Vulnerability Examples, OpenVAS, Metasploit
Module 4	Networks Vulnerability Scanning (Netcat, Socat), Network Sniffers and Injection tools
Module 5	Network Defense tools - Firewalls and Packet Filters: Firewall Basics, Packet Filter Vs Firewall, How a Firewall Protects a Network.
Module 6	Packet Characteristic to Filter, Stateless Vs Stateful Firewalls, Network Address Translation (NAT) and Port Forwarding.
Module 7	VPN: the basic of Virtual Private Networks
Module 8	Firewall: Introduction, Linux Firewall, Windows Firewall. Snort: Introduction Detection System.
Module 9	Web Application Tools -Scanning for web vulnerabilities tools: Nikto, W3af,
Module 10	HTTP utilities - Curl, Open SSL and S tunnel.
Module 11	Application Inspection tools – Zed Attack Proxy, Sqlmap, DVWA, Webgoat.
Module 12	Password Cracking and Brute-Force Tools: John the Ripper, L0htcrack, Pwdump, HTC-Hydra.
Module 13	Introduction to Cyber Crime- Law and Investigation Cyber Crimes, Types of Cybercrime, Hacking, Attack vectors, Cyberspace and Criminal Behavior, Clarification of Terms, Traditional Problems Associated with Computer Crime
Module 14	Introduction to Incident Response, Digital Forensics, Computer Language, Network Language, Realms of the Cyber world
Module 15	Internet crime and Act: A Brief History of the Internet, Recognizing and Defining Computer Crime, Contemporary Crimes, Computers as Targets, Contaminants and Destruction of Data, Indian IT ACT Page 3 of 23 2000.
Module 16	Firewalls and Packet Filters, password Cracking, Key loggers and Spyware, Virus and Warms, Trojan and backdoors, Steganography, DOS and DDOS attack, SQL injection, Buffer Overflow, Attack on wireless Networks.

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e-mail: mims_grnoida@yahoo.co.in   Fax: 0120-2570546

Date :- 10th February 2020

CIRCULAR

All the students of 3rd year 6th semester are informed that the Institute has arranged a thirty hours Value Added Programme on "Professional Communication Used in Industry".

The regular class sessions would start from 19th Februrary 2020 at 3:00 PM onward.

The entire session would be held on alternate days on weekly basis and the slots shall be placed in the current time table. The classes will be organized by the external experts of the industry professional from UR Services with whom the Institute has signed MOU of this effect.

All students are requested to avail the opportunity and give a boost to their professional career growth.

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Course Outline:

Week 1: Introduction to Professional Communication

- Importance of effective communication in business and industry
- Overview of course topics and expectations

Week 2: Written Communication Skills

- Writing effective emails, memos, and reports
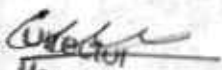- Developing effective presentations

Week 3: Interpersonal Communication Skills

- Active listening and effective feedback
- Conflict resolution and negotiation skills

Week 4: Communication for Teamwork and Leadership

- Developing effective teams
- Communicating as a leader

Week 5: Adapting Communication Styles

- Understanding different communication styles
- Adapting communication styles to different audiences

Week 6: Professional Etiquette and Ethical Standards

- Business etiquette and protocol
- Ethical standards for communication in the workplace

Week 7: Critical Thinking and Problem-Solving

- Analyzing case studies for effective communication
- Group project: developing a communication strategy for a hypothetical company

Week 8: Final Exam and Review

- Review of course topics
- Final exam on course content

Assessment Methods:

- Class participation and engagement (20%)
- Written assignments (40%)
- Group project (20%)
- Final exam (20%)

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e-mail: mims_grnoida@yahoo.co.in   Fax: 0120-2570546

Date:-5th February 2020

CIRCULAR

We are delighted to inform all students of 4th year 8th sem that a two months equal to thirty hours will be commenced Add – On Programme from 12th February 2020 in the institute. The name of the programme is "Scope of Artificial Intelligence in Industry".

Please note for the convenience of the students, these sessions will be held on alternate days in a week as per the scheduled time according to the slots mentioned in the time table of the class.

Please further be noted that these sessions will be conducted by industry experts from M/S ACTERM with whom the institute has entered into an agreement through a proper MOU. The name of the organization under whose aegis these sessions will be commenced is as follows.

All students are requested to avail the opportunity and give a boost to their professional career growth.

Please fill the attached expression of interest form to confirm your willingness to join the course.

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Scope of Artificial Intelligence in indurtries

Content

Total 30 Hours

Module	Topics
Module 1	Overview: Robotics introduction, historical perspective on AI and Robotics,
Module 2	Uncertainty in Robotics Reinforcement Learning: Basic overview, examples, elements,
Module 3	Tabular Solution Methods - Multiarmed bandits, Finite Markov decision process
Module 4	Dynamic programming (Policy Evaluation, Policy Iteration, Value Iteration),
Module 5	Monte Carlo Methods, Temporal-Difference Learning (Q-learning, SARSA)
Module 6	Approximate Solution Methods - On-policy Prediction with Approximation,
Module 7	Value function approximation, Non-linear function approximation,
Module 8	Reinforcement Learning in robotics, Recursive state estimation: Robot Environment Interaction, Bayes filters
Module 9	Gaussian filters – The Kalman filter, The Extended Kalman Filter, The information filter
Module 10	The particle filter Robot motion: Velocity Motion Model, Odometry Motion Model, Motion and maps.
Module 11	Measurement: Beam Models of Range Finders,
Module 12	Likelihood Fields for Range Finders,
Module 13	CorrelationBased Sensor Models,
Module 14	Feature-Based Sensor Models
Module 15	Overview of POMDP.

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MANGALMAY INSTITUTE OF ENGINEERING And TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Report on

2- Week (Online) Certification Course "Artificial Intelligence & Its Future Perspectives "

(01 June 2020 to 14June 2020)

Event Name: 2 -Week Certification Course "Artificial Intelligence & Its Future Perspectives"

Organizer: Computer Science & Engineering, MIET, Greater Noida

Date of the Event: 01/06/2020 to 14/06/2020

Platform Used: meet.google.com

Introduction: The Covid-19 epidemic has made every country realize the importance of online courses. However when initiatives in this area is seen at ground level, very few institutes stand out. One such initiative was taken by Mangalmay Institute of Engineering & Technology, Greater Noida. Department of Computer Science & Engineering, MIET, Greater Noida organized two week online certification course on "ARTIFICIAL INTELLEIGENCE & ITS FUTURE PERSPECTIVE" from 1/06/20 to 14/06/20. The course provided students a platform to get knowledge of tools & techniques used for Artificial Intelligence. The participation was online through "Google Meet" and special care was taken by MIET administration and Organizing Committee to follow norms of sanitization and social distancing.

Event Report: The event is stated by lighting of the Lamp by the Director Sir, Dean Sir, HOD CSE and HOD Applied Science. The main objective of this course is to give insight of Artificial Intelligence to Students

Topics Discussed in different Session are as Follows

(Bhavesh Mathur)

Page 1 of 5

Date	Morning Session			Evening Session		
	Time	Session Details	Session Chair	Time	Session Details	Session Chair
1-Jun-20	10 AM to 12 PM	Inaugural Session and Job Opportunities in AI	Honourable Chairman Sir,Honourable Vice Chairman Sir,Dr. Yashpal Singh,Prof.Harish Bhatia ,Dr.Yaduvir Singh	2:30PM to 4:30PM	Types of Data And Its Categories	Dr.Yaduvir Singh/Bhavesh Mathur
2-Jun-20	10 AM to 12 PM	AI Techniques	Ms.Lalita Verma	2:30PM to 4:30PM	Role of AI in Covid 19	Ms.Chandana Rathi
3-Jun-20	10 AM to 12 PM	Industry Expert Session	Ms.Shivani Agarwal/Chandana Rathi (Industry	2:30PM to 4:30PM	Python Fundamental	Mr. Sarvachan Verma
4-Jun-20	10 AM to 12 PM	AI Techniques	Ms.Lalita Verma	2:30PM to 4:30PM	Python(Assessment)	Mr.Sarvachan Verma
5-Jun-20	10 AM to 12 PM	Development of AI	Mr.Yogesh Dwivedi(Industry Expert)	2:30PM to 4:30PM	Data Science	Dr.Sudarshan Gorwani(Industry Expert)
6-Jun-20	10 AM to 12 PM	Need of AI	Mr. Abhinav Tripathi	2:30PM to 4:30PM	AI and its Scope	Ms.Anjali Sharma(Industry Expert)

SUNDAY						
- 8-Jun-20	10 AM to 12 PM	AI and its application to Medical Field	Mr.Suman Kumar Jha	2:30PM to 4:30PM	Need of AI	Mr. Bhupendra Bhadana
9-Jun-20	10 AM to 12 PM	Applications of AI	Mr.Taranjeet Singh	2:30PM to 4:30PM	Applications of AI	Mr.Taranjeet Singh
10-Jun-20	10 AM to 12 PM	Deep Learning	Mr.Kishan Sharda(Industry Expert)	2:30PM to 4:30PM	Functions in Python	Mr. Sarvachan Verma
11-Jun-20	10 AM to 12 PM	AI & its application to cyber security	Mr. Alok Katiyar	2:30PM to 4:30PM	RPA	Mr. Ankit Sinha & Team
12-Jun-20	10 AM to 12 PM	Learning & its category	Mr. Bhavesh Mathur	2:30PM to 4:30PM	Expert Session	Prof.Harish Bhatia/Dr. Jyotsna Pandit
13-Jun-20	10 AM to 12 PM	Assessment	Mr.Bhavesh Mathur,Mr.Sarvachan Verma,Mr.Taranjeet Singh	2:30PM to 4:30PM	Feedback & Valedictory Session	Honourable Chairman Sir,Honourable Chairman Sir,Dr.Yashpal Singh,Prof.Harish Bhatia ,Dr.Yaduvir Singh

The students of the CSE participated in the event and got the maximum benefit out of it. The speaker gives the stress on the AI and its future perspective and the different job options that are available for the students and stress in this area. The event is coordinated by Mr. Bhavesh Mathur, AP Department of CSE & Mr Bhupendra Bhadana, AP Department of CSE. The event is ended with Vote of Thanks by Dean (Prof). Harish Bhatia.

Institutional Programme Brochure / Circular and Curriculum of Value Added Programs for Academic Session 2018-19

Date: - 19 sep 2018

CIRCULAR

All the students of 1ˢᵗ year 1ˢᵗ semester are informed that the institute has arranged a thirty Six hours Add-on Programme on "**Advance C+**".

The regular class sessions would start from **26 sep 2018** from 03:00 PM mention on time table.

The entire session would be held on alternate days on weekly basis and the slots shall be placed in the current time table. The classes will be organized by the external experts of the industry professional with whom the institute has signed MOU (seven seas) of this effect.

All students are requested to avail the opportunity and give a boost to their professional career growth.

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Advance C/C++ SYLLABUS

Total Time:36 Hours

Module	Topics

Module 1	I. Introduction to Program & Programming
	  A. Definition of a Computer Program
	  B. Definition of Computer Programming and Algorithms

Module 2	C. Basic Program Control Structures
	    1. Sequence
	    2. Condition(Selection)
	    3. Loop(Repetition)

Module 3	II. Program Elements of C/C++ Language
	  A. Identifiers & Naming Conventions
	  B. Operators & Their Precedence
	  1. Arithmetic
	  2. Relational & Logical
	  3. Bitwise

Module 4	C. Data Types in C/C++ D. Constants & Variables

Module 5	E. Program Statements/Functions
	    1. Basic Input & Output
	      a. printf()/cout
	      b. scanf()/cin
	Simple(Sequential Conditional)

Module 6	2. Repetitive C/C++ Built-in Functions

Module 7	F. Structure of a C/C++ Program
	G. Programming Paradigms and Software Design Techniques/
	  Methodologies
	    1. Spaghetti Coding
	    2. Modular Design
	    3. Object-Oriented Programming (OOP)
	    4. Rapid Application Development (RAD)

Module 8	III. Program Development (Life) Cycle
	A. Pre-Programming Phase
	    1. Problem Identification/ Definition/Specification.
	  2. Problem Analysis
	      a. Specification of Output, Input and Processes Required

Module 9	3. Formulation of the Algorithm 4. Program Design (Development of Pseudo-code, Flowchart, Decision Table, and/or Hierarchy Chart

Module 10	B. Programming Phase
	Writing the Program Code
	  C. Post Programming Phase
	Testing & Debugging
	    1. Documentation

		a. Technical
		b. Non-Technical
Module 11	IV. Introduction to C/C++ Programming and Its Environment.	
	A. Formal Introduction to Turbo/Borland C/C++ IDE	
	B. Syntax in Declaring a Variable in C/C++	
Module 12	C. The Preprocessor Directives	
	1. #include	
	#define	
	D. The Global Declarations	
	1. Global Variables	
	User-Defined Functions	
Module 13		
	E. The main() function	
	F. Syntaxes in Declaring, Defining and Calling a Function	
	G. Passing parameters (arguments) to a function.	
Module 14	H. The Exit statement.	
	I. Scope of Variables and Rules of Scope.	
	J. The Available String and Math Functions in C/C++	
Module 15	V. Introduction to Arrays	
	A. Defining an Array.	
	B. Examples Using Arrays.	
Module 16	C. Sorting Arrays.	
	D. Searching Arrays.	
Module 17	E. Declaring an Array.	
	F. Passing Arrays to Functions.	
Module 18	G. Basic Sorting Techniques.	
	H. Multi-dimensional Arrays	

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e-mail: miims_grnoida@yahoo.co.in   Fax: 0120-2570546

Date: - 20 August 2018

CIRCULAR

We are delighted to inform all students of ...2nd.. year ...3ʳᵈ sem.. that a two months equal to thirty two hours will be commenced Add – On Programme from **3 September 2018** in the institute. The name of the programme is **"Use of Python in Profession"**.

Please note for the convenience of the students, these sessions will be held on alternate days in a week as per the scheduled time according to the slots mentioned in the time table of the class.

Please further be noted that these sessions will be conducted by industry experts from **M/S United Resourcing Services** with whom the institute has entered into an agreement through a proper MOU. The name of the organization under whose aegis these sessions will be commenced is as follows.

All students are requested to avail the opportunity and give a boost to their professional career growth.

Please fill the attached expression of Interest form to confirm your willingness to join the course.

Director

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- IQAC
- ➤ All the faculty Members of the above programmes
- ➤ Notice Board.

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College Code-788

Use of PYTHON in Profession

Content

Module	Topics
Module 1	History of Python, Need of Python Programming.
Module 2	Applications Basics of Python Programming Using the REPL(Shell)
Module 3	Running Python Scripts, Variables
Module 4	Assignment, Keywords, Input-Output, indentation.
Module 5	Types - Integers, Strings, Booleans
Module 6	Operators- Arithmetic Operators, Comparison (Relational) Operators, Assignment Operators, Logical Operators, Bitwise Operators, Membership Operators, Identity Operators
Module 7	Expressions and order of evaluations Control Flow- if, if-elseif-else, for, while, break, continue, pass.
Module 8	Data Structures Lists- Operations
Module 9	Slicing, Methods; Tuples, Sets, Dictionaries
Module 10	Sequences, Comprehensions.
Module 11	Defining Functions, Calling Functions, Passing Arguments, Keyword Arguments, Default Arguments, Variable-length arguments, Anonymous Functions, Fruitful Functions(Function Returning Values)
Module 12	Scope of the Variables in a Functions-Global and local variables
Module 13	Modules: Creating modules, import statement, from. Import statement, name spacing
Module 14	Python packages Introduction to PIP, Installing Packages via PIP, Using Python Packages.
Module 15	Object Oriented Programming OOP in Python: Classes, 'self variable', Methods, Constructor Method, Inheritance, Overriding Methods, Datahiding
Module 16	Error and Exceptions: Difference between an error and Exception, Handling Exception, try except block, Raising Exceptions, User Defined Exceptions.
Module 17	Standard Library - Operating System Interface - String Pattern Matching, Mathematics, Internet Access, Dates and Times, Data Compression, Multithreading,GUI Programming, TurtleGraphics
Module 18	Testing: Why testing is required ?, Basic concepts of testing, Unit testing in Python, Writing Test cases, Running Tests.

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Date: - 20 August 2018

CIRCULAR

We are delighted to inform all students of 3rd year 5th sem. that a two months equal to thirty hours Value Added programme will be commenced from **3 September 2018** in the institute. The name of the programme is **"Managerial Traits and Industry Leadership"**.

Please note for the convenience of the students, these sessions will be held on alternate days in a week as per the scheduled time according to the slots mentioned in the time table of the class.

Please further be noted that these sessions will be conducted by industry experts from **"Red Hat"** with whom the institute has entered into an agreement through a proper MOU. The name of the organization under whose aegis these sessions will be commenced is as follows.

All students are requested to avail the opportunity and give a boost to their professional career growth.

Please fill the attached expression of interest form to confirm your willingness to join the course.

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Course Outline:

Week 1: Introduction to Managerial Traits and Industry Leadership
- Definition of leadership
- Key traits of effective leaders
- Overview of various leadership theories

Week 2: Transformational Leadership
- Understanding transformational leadership
- Characteristics of transformational leaders
- Benefits and limitations of transformational leadership

Week 3: Situational Leadership
- Understanding situational leadership
- Characteristics of situational leaders
- Benefits and limitations of situational leadership

Week 4: Servant Leadership
- Understanding servant leadership
- Characteristics of servant leaders
- Benefits and limitations of servant leadership

Week 5: Effective Communication in Leadership
- Importance of communication in leadership
- Developing effective communication skills
- Communication barriers and how to overcome them

Week 6: Decision Making and Problem Solving in Management
- Understanding decision-making and problem-solving in management
- Decision-making models
- Problem-solving techniques

Week 7: Ethical and Socially Responsible Leadership
- Understanding ethical leadership
- Importance of social responsibility in leadership
- Strategies for promoting ethical and socially responsible behavior

Week 8: Industry-specific Case Studies
- Analysis of industry-specific leadership examples
- Lessons learned and how they apply to leadership in other industries

Course Materials:
- "The Leadership Challenge" by James M. Kouzes and Barry Z. Posner
- "Leadership: Theory and Practice" by Peter G. Northouse
- "Servant Leadership: A Journey into the Nature of Legitimate Power and Greatness" by Robert K. Greenleaf
- Case studies and articles on leadership in various industries

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e-mail: mims_grnoida@yahoo.co.in   Fax: 0120-2570546

Date:-13 August 2018

CIRCULAR

We are delighted to inform all students of 4th year 7 sem. that a two months equal to thirty two hours will be commenced Add – On Programme from **27 august 2018** in the institute. The name of the programme is **"Scope of Artificial Intelligence in Industry"**.

Please note for the convenience of the students, these sessions will be held on alternate days in a week as per the scheduled time according to the slots mentioned in the time table of the class.

Please further be noted that these sessions will be conducted by industry experts of **M/S Red Hat** with whom the institute has entered into an agreement through a proper MOU. The name of the organization under whose aegis these sessions will be commenced is as follows.

All students are requested to avail the opportunity and give a boost to their professional career growth.

Please fill the attached expression of interest form to confirm your willingness to join the course.

Director

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Scope of Artificial Intelligence in Industries

Content

Total 32 Hours

Module	Topics
Module 1	Overview: Robotics Introduction, historical perspective on AI and Robotics,
Module 2	Uncertainty in Robotics Reinforcement Learning: Basic overview, examples, elements,
Module 3	Tabular Solution Methods - Multiarmed bandits, Finite Markov decision process
Module 4	Dynamic programming (Policy Evaluation, Policy Iteration, Value Iteration),
Module 5	Monte Carlo Methods, Temporal-Difference Learning (Q-learning, SARSA)
Module 6	Approximate Solution Methods - On-policy Prediction with Approximation,
Module 7	Value function approximation, Non-linear function approximation,
Module 8	Reinforcement Learning in robotics, Recursive state estimation: Robot Environment Interaction, Bayes filters
Module 9	Gaussian filters – The Kalman filter, The Extended Kalman Filter, The information filter
Module 10	The particle filter Robot motion: Velocity Motion Model, Odometry Motion Model, Motion and maps.
Module 11	Measurement: Beam Models of Range Finders,
Module 12	Likelihood Fields for Range Finders,
Module 13	CorrelationBased Sensor Models,
Module 14	Feature-Based Sensor Models
Module 15	Overview of POMDP.

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Date: - 6 Feb 2019

CIRCULAR

All the students of 1st year 2nd semester are informed that the institute has arranged a thirty hours Value Added Programme on "Professional Communication Used in Industry".

The regular class sessions would start from **20 Feb 2019** at 03:00 PM onward.

The entire session would be held on alternate days on weekly basis and the slots shall be placed in the current time table. The classes will be organized by the external experts of the industry professional from **M/S Vardhman Recruiters** with whom the institute has signed MOU of this effect.

All students are requested to avail the opportunity and give a boost to their professional career growth.

Director, Director
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Institute of Engineering & Technology
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College Code-788

Course Outline:

Week 1: Introduction to Professional Communication
- Importance of effective communication in business and industry
- Overview of course topics and expectations

Week 2: Written Communication Skills
- Writing effective emails, memos, and reports
- Developing effective presentations

Week 3: Interpersonal Communication Skills
- Active listening and effective feedback
- Conflict resolution and negotiation skills

Week 4: Communication for Teamwork and Leadership
- Developing effective teams
- Communicating as a leader

Week 5: Adapting Communication Styles
- Understanding different communication styles
- Adapting communication styles to different audiences

Week 6: Professional Etiquette and Ethical Standards
- Business etiquette and protocol
- Ethical standards for communication in the workplace

Week 7: Critical Thinking and Problem-Solving
- Analyzing case studies for effective communication
- Group project: developing a communication strategy for a hypothetical company

Week 8: Final Exam and Review
- Review of course topics
- Final exam on course content

Assessment Methods:
- Class participation and engagement (20%)
- Written assignments (40%)
- Group project (20%)
- Final exam (20%)

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Date:- 6 feb2019.

CIRCULAR

We are delighted to inform all students of 2nd year 4th sem. that three months equal to forty hours will be commenced Add – On Programme from **20 feb 2019** in the institute. The name of the programme is "How Block Chain Works In Industry".

Please note for the convenience of the students, these sessions will be held on alternate days in a week as per the scheduled time according to the slots mentioned in the time table of the class.

Please further be noted that these sessions will be conducted by industry experts with whom the institute has entered into an agreement through a proper MOU. The name of the organization under whose aegis these sessions will be commenced is as follows.

All students are requested to avail the opportunity and give a boost to their professional career growth.

Please fill the attached expression of interest form to confirm your willingness to join the course..

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How Block chain Works in Industries

SYLLABUS

Credit: 40 hours

Module	Topics
Module 1	History, definition, features, types
Module 2	benefits of block chain and bit coin,
Module 3	Consensus, CAP theorem and block chain.
Module 4	Decentralization – methods, routes, smart contracts, platforms.
Module 5	Symmetric and Asymmetric cryptography
Module 6	Public and private keys
Module 7	theoretical foundations cryptography with practical examples.
Module 8	Introduction to financial markets, use cases for block chain technology in the financial sector
Module 9	Bitcoin, Transactions, Block chain, Bitcoin payments, technical concepts related to bitcoin cryptocurrency
Module 10	Smart Contracts, definition of smart contracts, Ricardian contracts, Oracles, and the theoretical aspects of smart contracts.
Module 11	Ethereum 101 - design and architecture of the Ethereum block chain.
Module 12	Various technical concepts related to the Ethereum block chain that explains the underlying principles
Module 13	features, and components of this platform in depth.
Module 14	Hyperledger – protocol and architecture
Module 15	Case studies on alternative Block chains

Date: - 13 Feb 2019

CIRCULAR

We are delighted to inform all students of 3rd year 6th Semester that of thirty two hours will be commenced Add – On Programme from **27 Feb 2019** in the institute. The name of the programme is "Misuse of Cyber Applications and Protections.".

Please note for the convenience of the students, these sessions will be held on alternate days in a week as per the scheduled time according to the slots mentioned in the time table of the class.

Please further be noted that these sessions will be conducted by industry experts with from M/S ACTERM , the institute has entered into an agreement through a proper MOU. The name of the organization under whose aegis these sessions will be commenced is as follows.

All students are requested to avail the opportunity and give a boost to their professional career growth.

Please fill the attached expression of Interest form to confirm your willingness to join the course.

Director. **Director**
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(College Code-786

Misuse of cyber Applications and Protections

Credit: 30 hours

Module	Topics
Module 1	Introduction to Cyber Security -Introduction, Computer Security, Threats, Harm, Vulnerabilities, Controls, Authentication, Access Control and Cryptography.
Module 2	Web attack: Browser Attacks, Web Attacks Targeting Users, Obtaining User or Website Data, Email Attacks.
Module 3	Network Vulnerabilities: Overview of vulnerability scanning, Open Port / Service Identification, Banner /Version Check, Traffic Probe, Vulnerability Probe, Vulnerability Examples, OpenVAS, Metasploit
Module 4	Networks Vulnerability Scanning (Netcat, Socat), Network Sniffers and Injection tools
Module 5	Network Defense tools - Firewalls and Packet Filters: Firewall Basics, Packet Filter Vs Firewall, How a Firewall Protects a Network,
Module 6	Packet Characteristic to Filter, Stateless Vs Stateful Firewalls, Network Address Translation (NAT) and Port Forwarding.
Module 7	VPN: the basic of Virtual Private Networks
Module 8	Firewall: Introduction, Linux Firewall, Windows Firewall. Snort: Introduction Detection System.
Module 9	Web Application Tools -Scanning for web vulnerabilities tools: Nikto, W3af,
Module 10	HTTP utilities - Curl, Open SSL and S tunnel.
Module 11	Application Inspection tools – Zed Attack Proxy, Sqlmap, DVWA, Webgoat.
Module 12	Password Cracking and Brute-Force Tools: John the Ripper, L0htcrack, Pwdump, HTC-Hydra.
Module 13	Introduction to Cyber Crime- Law and Investigation Cyber Crimes, Types of Cybercrime, Hacking, Attack vectors, Cyberspace and Criminal Behavior, Clarification of Terms, Traditional Problems Associated with Computer Crime
Module 14	Introduction to Incident Response, Digital Forensics, Computer Language, Network Language, Realms of the Cyber world
Module 15	Internet crime and Act: A Brief History of the Internet, Recognizing and Defining Computer Crime, Contemporary Crimes, Computers as Targets, Contaminants and Destruction of Data, Indian IT ACT Page 3 of 23 2000.
Module 16	Firewalls and Packet Filters, password Cracking, Key loggers and Spyware, Virus and Warms, Trojan and backdoors, Steganography, DOS and DDOS attack, SQL injection, Buffer Overflow, Attack on wireless Networks.

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Date:- 13 Feb 2019

CIRCULAR

We are delighted to inform all students of ...4th year 8th semester that of forty hours will be commenced Add – On Programme from **27 Feb 2019** in the institute. The name of the programme is **"Cyber Security and Challanges"**.

Please note for the convenience of the students, these sessions will be held on alternate days in a week as per the scheduled time according to the slots mentioned in the time table of the class.

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Director

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Cyber Security and Challenges

Credit: 30 hours

Module	Topics
Module 1	Introduction to Cyber Security -Introduction, Computer Security, Threats, Harm, Vulnerabilities, Controls, Authentication, Access Control and Cryptography.
Module 2	Web attack: Browser Attacks, Web Attacks Targeting Users, Obtaining User or Website Data, Email Attacks.
Module 3	Network Vulnerabilities: Overview of vulnerability scanning, Open Port / Service Identification, Banner /Version Check, Traffic Probe, Vulnerability Probe, Vulnerability Examples, OpenVAS, Metasploit
Module 4	Networks Vulnerability Scanning (Netcat, Socat), Network Sniffers and Injection tools
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