

INTERNSHIP PROGRAM IN —

# ARTIFICIAL INTELLIGENCE & MACHINE LEARNING

Faculty of Information Technology and Department of Computer Science

Date: 23<sup>rd</sup> May to 6<sup>th</sup> July 2023

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## **Mission**

Kalinga University aims to be an outstanding institution for Talent Development and Knowledge Creation for a vibrant and inclusive society.



# Our **University**

Kalinga University, Raipur is a NAAC accredited University with Grade B+ and the Only Private University in Chhattisgarh ranked in Top 101-150 Universities in NIRF Ranking 2022 and has emerged as a centre of excellence of higher education in Central India. Strategically located in the Smart City of New Raipur, this University has started carving a niche for itself in the education domain and is rising as a shining star on the horizon of quality education.

Infrastructure – Kalinga offers World Class Infrastructure and student facilities with student centric approach. Highest attention is paid to hands on learning approach and students are encouraged to come up with innovative ideas for projects and practical's. The University has more than 90 laboratories and workshops, all well equipped with the latest, state of the art apparatus and tools. Special emphasis is given to the development of communication skills through the language lab. More than 1000 computers are available for the use of the students.



**Establishment –** Established in 2013, this University has been able to win the confidence of over 8000 students. Meritorious students from all over the country and various foreign countries like Afghanistan, Angola, Bangladesh, Cameroon, Gambia, Ivory Coast, Kenya, Lesotho, Liberia, Malawi, Namibia, Nepal, Nigeria, Papua New Guinea, South Sudan, Swaziland, Tanzania, Uganda, Zambia, Zimbabwe, etc have chosen this University for their education and career.

**Schools of Excellence –** Currently the University is serving the student community through various UG and PG programs namely Engineering, Law, Pharmacy, Arts & Humanities, Science, Commerce & Management, Biotechnology, Information Technology, Library Science, Fashion Design & Interior Design.



# About Internship Program

- Most technological advancements as of now have components of Artificial Intelligence and Machine learning.
- This 45-day Artificial Intelligence and Machine Learning Course is remarkably planned by Kalinga University with experts, to help you ace precisely the exact thing the Artificial Intelligence and Machine Learning needs to position market requests.

# **Advantages**

- Internship Program in Al and Machine Learning will assist you in pursuing a career in Al, Computer Vision, Machine learning, and Deep Learning.
- Assemble ML models with NumPy and scikit-learn, construct and train supervised models for prediction & binary classification tasks (linear, logistic regression).
- Build & train a neural network with TensorFlow to perform multi-class classification, & build & use decision trees & tree ensemble methods.
- Apply best practices for ML development & use unsupervised learning techniques for unsupervised learning including clustering & anomaly detection.
- Understand the definition of AI, its applications, and use cases, and explain terms like machine learning, deep learning, and neural networks.

#### Who Should **Attend**

Beneficial For - Students of UG/PG Programs & Research Scholars of Information Technology, and Computer Science, etc.



**Resource** Persons



Mr. Omprakash Dewangan
HoD incharge,
Dept. of Computer Science &
Faculty of Information Technology

Ms. Pooja P. Raj
Assistant Professor,
Dept. of Computer Science



# **Program** Details

Duration: 45 Days

Date: 23rd May to 6th July 2023

Monday to Saturday

Time: 10:00 am to 4:00 pm VENUE: Kalinga University

PROGRAM FEE

RS 10,000/-



#### NOTE -

- 1. Accommodation facility is available on a chargeable basis: Rs 6,500/- for 45 days inclusive of Food (Air Cooled Room- 4 Students/Room, 3 Meals per day & other amenities).
- 2. Transport Facility available from common pickup point (Free).

# Steps For **Registration**

STEP 1: Participants have to make payment on the given bank details

Account Name: Kalinga University

Bank Name: ICICI Bank A/c No.: 390701000010

IFSC Code No.: ICIC0003907 SWIFT CODE: ICICINBBCTS

STEP 2: Take a screenshot of the payment & send it to

omprakash.dewangan@kalingauniversity.ac.in

STEP 3: Fill out the registration form with all the necessary information.



#### **REGISTER HERE**



#### **CONTACT DETAILS**

+91-7024133429 | omprakash.dewangan@kalingauniversity.ac.in







# Program **Schedule**

#### Module-I Introduction to Al

S.No.	Topics	Duration
1.	Introduction to AI, Specialized production system	
2.	Intelligent Agent	
3.	Search strategies	5 days
4.	Uninformed Search Algorithm	
5.	Informed Search Algorithm	





## Module-II Problem Solving

S.No.	Topics	Duration
1.	Problem solving methods	
2.	Minimax Algorithm	
3.	Alpha-Beta Pruning	5 days
4.	Heuristic functions -Hill Climbing	
5.	Depth first and Breadth first, Constraint's satisfaction	

## Module-III Knowledge Representation

S.No.	Topics	Duration
1.	Knowledge representation using Predicate logic	
2.	Introduction to predicate calculus	
3.	Resolution, use of predicate calculus	5 days
4.	Knowledge representation using other logic-Structured representation of knowledge	
5.	First order logic	





# Module-IV Introduction to Machine Learning

S.No.	Topics	Duration
1.	Machine Learning Applications	
2.	Life cycle of Machine Learning	
3.	Supervised Machine Learning	5 days
4.	Unsupervised Machine Learning	
5.	Data Processing	

# Module-V Supervised Learning

S.No.	Topics	Duration
1.	Regression Analysis	
2.	Linear Regression	
3.	Simple Linear Regression	C days
4.	Multiple Linear Regression	6 days
5.	Backward Elimination	
6.	Polynomial Regression	





## Module-VI Classification

S.No.	Topics	Duration
1.	Classification Algorithm	
2.	Logistic Regression	
3.	K-NN Algorithm	5 days
4.	Support Vector Machine Algorithm	
5.	Naive Bayes Classifier	



## Module-VII Machine Learning Algorithms

S.No.	Topics	Duration
1.	Decision Tree classifier, Support vector machine classifier	
2.	Random forest classifier, Logistic Regression classifier	
3.	Working with Unlabeled Data (Unsupervised Learning)	7 days
4.	Usage Unstructured data Predicting Elbow Method	
5.	K -means Algorithm	
6.	Regression Model	
7.	Correlation and Covariance	

# Module-VIII Al ML Package & Practical Implementation

S.No.	Topics	Duration
1.	Introduction to python programming	
2.	Installation of packages in python	
3.	Working with matplotlib	
4.	Working with pandas	7 days
5.	Color tracking using OpenCV	
6.	Edge detection using OpenCV	
7.	Region of Interest using OpenCV	





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www.kalingauniversity.ac.in

