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# MEMORANDUM OF UNDERSTANDING

between

Artificial Intelligence Research and Intelligent Systems (airis4D) Thelliyoor -689544 Kerala, India

AND

Department of Physics, Christ College (Autonomous), Irinjalakuda

on

Value Added Certificate Course in "Artificial Intelligence and Robotics"

This Memorandum of Understanding (MOU) is made between Department of Physics, Christ College (Autonomous) ("Institution"), located in Innjalakuda and airis4D, Corporate Identity Number: U80200KL2017NPL050020, Thelliyoor 689544, Kerala, India. Christ College and airis4D are each a "Party" and together are referred to as the "Parties".

#### **Purpose**

The purpose of this MOU is to state the intentions of the parties in undertaking a collaboration in the conducting a value added certificate course in Al and Robotics at Christ College, Irinjalakuda. The Parties have common scientific and research interests and will cooperate in performing the activities stated below.

## Types of Cooperative Activities

The scope of collaboration on research activities to be pursued through this MOU includes the following:

- 1. Research collaboration in the areas of mutual interest.
- 2. Exchange of academic materials which are made available by both parties.
- 3. Exchange of visiting research scholars.
- 4. Cooperative symposia, seminars, workshops and conferences.



### **Specific Research Activities**

Activity I: Conduct a certificate course in AI and robotics.

Activity 2: Frame suitable syllabus for the course of duration 30 hrs.

**Activity 3:** Conduct classes, exams, assignments/practicals as applicable and to distribute certificates.

#### **Funding**

The Parties intend to support the specific course activities stated above through a fees of ₹\_3000/-per student. The payment terms and schedule will be stated in a later, formal agreement. Until the Parties enter into a formal agreement, each Party will bear its own costs.

#### MOU is Non-binding

This MOU is not intended by the Parties to be legally binding. Any binding obligations will be the subject of later, definitive agreements negotiated between the Parties. Nothing in this MOU is intended to create a legal partnership or joint venture or is intended to create any new academic programs. The Parties recognize that airis4D could only establish such programs in accordance with national and institutional policies and procedures.

#### **Formal Agreement**

The Parties' intentions expressed in this MOU will be the subject of a future definitive agreement, which will contain detailed provisions stating the Parties' rights and obligations including:

- a. Detailed statement of work
- b. Milestones and schedule for deliverables
- c. Funding arrangements, including allocation of funds both domestically and internationally as required
- d. Intellectual property arrangements
- e. Exchange of materials, data, and software
- f. Disclosure of confidential information
- g. Compliance with laws and regulations, including those applicable to human and animal subjects in research, disclosures of conflicts of interest, and export controls.
- h. Roles and responsibility in administering and managing the project.

#### Publicity and Use of Names and Trademarks

Nothing in this MOU authorizes a Party to use the name of the other Party or its employees in any advertisement, press release, or publicity with reference to this MOU or any product or service resulting from activities contemplated by this MOU, without prior written approval of an authorized representative of the other Party. The Parties acknowledge that by entering into this MOU airis4D is neither stating nor implying that it has tested, endorsed or approval any product, service or company.

Nothing in this Article is intended to restrict either Party from disclosing the existence of any nature of this MOU or from including the existence of and nature of this MOU in the routine reporting of its activities.

#### **General Terms**

1. This MOU is effective from the date when both parties have signed it ("Effective Date").

2. This MOU shall remain in force for a period of five (5) years from the Effective Date. Either Party may terminate the MOU by providing at 60 days' advance written notice to the other Party. Termination or expiration of this MOU does not automatically terminate any separate agreement between the Parties related to the subject matter of this MOU.

3. The MOU may be amended or extended by mutual consent in writing signed by authorized representatives of the Parties.

4. Each party is liable for its own acts and omissions under this MOU, which, for the prevention of doubt, does not include any liability based on the acts or omissions of a third

5. Confidential information shall be exchanged only under the terms of a separate agreement, whether a non-disclosure agreement, sponsored research agreement, material transfer agreement, or data use agreement. No confidential information shall be disclosed pursuant to this MOU.

6. No export-controlled information shall be disclosed pursuant to this MOU.

7. This MOU is written in English and [language]. In the event of a discrepancy between the English and [language] version of this MOU, the English version will prevail.

8. This MOU may be executed in counterparts, which taken together will constitute one document

#### **Notices**

Dr. SHAJU K.Y., MSC. M.PRI, PODCA, PRID

Each Party must provide all required notices under this MOU in writing to the addresses set forth below or such other addresses designated by the receiving Party: Thressur, Kerala

For [Institution]:

[Name of contact

: Dr. Shaju K.Y

Title

: Head

Unit or Department

: Physics Department

Partner Institution

: Christ College (autonomous)

Address Phone

: Irinjalakuda

: 9446721949

Email:

: shajuky@gmail.com

For airis4D:

[Name of contact

: Ninan Sajeeth Philip : Dean and Director.

Title

Unit or Department

: airis4D, Al division

: airis4D, Thelliyoor -689544



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# Artificial Intelligence Research and Intelligent Systems - airis4D

Thelliyoor-689544, Kerala State, India

https://www.airis4d.com

Phone: +91-9496552479, 9497552476

With copy to:

The Principal.

Christ College (autonomous)

Irinjalakuda.

Phone Email:

Signed for and on behalf of

#### airis4D.

Thelliyoor -689544 by its authorized representative:

Artificial Intelligence Research Signature Thelliyoor 6896Fy

Name

: Ninan Sajeeth Philip

Title

Dean and Director,

airis4D, Thelliyoor

DIN:

08164662

Date

24th of Sept 2020

Christ College (autonomous),

Irinjalakuda

by its authorized representative:

Signature

Name : Dr. Shaju K. Y

Title

Head, Department of Physics Christ College, Irinjalakuda.

Date

24th of Sept 2020



# Christ College, Irinjalakuda Department of Physics

## **COURSE PROPOSAL**

Proposed course title: Value Added Certificate Course in Artificial Intelligence

and Machine Learning.

No of credits : 30

Course description / Outline of course content:

The certificate course shall give a practical introduction to the most exciting area of Artificial Intelligence and Machine Learning. Being a topic of global interest and due to its fast development, the certificate course is expected to provide the students the necessary introduction to the concepts, programming platforms and hands on skills to master Al.

The course shall cover basic to moderate level programming skills in Python language, conceptual basis of AI, starting from the biological neurons to back-propagation, reinforcement learning, clustering and support vector machines.

The course will consist of 30 hours of classes including hands-on sessions and assignments. Course completion certificates and credits will be given as per the general norms.

Course attributes, personal and professional skills(Purpose of course)/
Student Learning Outcomes (SLOs):

This is a professional training program. The students who complete the program will be able to write their own AI models for some of the basic applications of AI in scientific and commercial computing. Since AI is having high demand in industry, this will provide ample opportunities for the students to further develop necessary skills for industry appointments. The certificate course will also help self discovery whereby some of them may opt to do a higher degree in AI and related applications of AI.



#### Pr-requisites of course:

Since IT@Schools has given a introduction to most students, they are expected to have a fair understanding of computer and its applications. Python language is taught only in some schools and hence the course do not assume a prior knowledge of Python. However, the students are expected to have knowledge of language independent basic programming methods such as algorithm, flow chart etc. Since this is a computer based program, access to a personal computer will be mandatory. The course content shall provide all necessary software packages to do the course.

#### Reasons for selecting this course with availability of industry and market survey:

Al is going to be the technology for at least the next few decades. The industry is hunting for Al experts to handle many of the recent demands in control systems and robotics. As for example, Al based Covid-19 analysis provided the most efficient mitigation and control models worldwide. The market share of Al is expected to grow exponentially in the coming decade (see the projected figures in the diagram below). The certificate course will set the basis for the participating students to venture into this highly demanding area of entrepreneurship in the industry. While hardware growth is expected to be 20%, the growth in software and services shall occupy the remaining 80% of the growth. This is makes the certificate course highly remunerative to invest upon.

#### North America Artificial Intelligence Market Size, 2016-2027 (USD Billion)

