

Ethical Certificate

1. Project information and Affiliation

Project Title: "Geological Mapping of Industrial and Metallic Mineral Deposits by Applying Artificial Intelligence Techniques on Remote Sensing Data"

Name of Principle investigator: Dr. Khan Muhammad

Address: Assistant Professor, Department of Mining Engineering, University of Engineering and Technology Peshawar.
& PI of Intelligent Information Lab, National Centre of AI, UET Peshawar.

2. Terms of approval

- I. It is the sole responsibility of the researcher to ensure a written informed consent, data confidentiality and potential risks if any associated with the proposed project.
- II. The PI/CO-PI shall inform Research Ethical Committee (REC) immediately of any serious or unexpected adverse effects on participants or unforeseen events affecting the ethical acceptability of the proposal.
- III. Amendments to the proposal (including changes in personnel) requires the submission of a request for amendment form to REC and must not begin without written approval from REC. Substantial variations may require a new application.

ANaeem
13 Jan 2020.

Prof. Dr. Akhtar Naeem Khan
Dean Faculty of Civil, Agricultural
and Mining Engineering, UET
Peshawar



No. _____
Dated 13-1-2020

Vice Chancellor

The Director R&D,
Higher Education Commission,
Islamabad.


Subject: **Letter of Support/Commitment for HEC-NRPU Research Proposal**

Dear sir,

I am pleased to write this letter of support in respect of Dr. Khan Muhammad as he is intending to submit a project proposal titled "Geological Mapping of Industrial and Metallic mineral deposits by Applying AI techniques on Remote Sensing data" in the NRPU call (2019-2020) announced by Higher Education Commission of Pakistan.

The University of Engineering and Technology (UET), Peshawar is a premier institution in engineering excellence where faculty and students conduct dynamic research and provide indigenous solutions to problems in different fields. UET is also part of the initiatives from HEC for establishment of National Centers to conduct research in the fields of conventional and emerging engineering disciplines.

It is ensured that the UET Peshawar will provide support for the establishment and smooth operation of this project, if funded by the HEC.


(Prof. Dr. Iftikhar Hussain)



Department of Mining Engineering
UNIVERSITY OF ENGINEERING AND TECHNOLOGY (UET)
PESHAWAR, PAKISTAN
Ph: 0092 (0) 91 9216796 Ext. 3031
Email: khan.m@uetpeshawar.edu.pk

Ref: No. 1540/Min.

Date: 27 July 2020

To,
Dr. Yasar Ayaz
Central Project Director,
National Centre of AI (NCAI),
H-12 Campus NUST
Islamabad
051-90856030-31

Through:
Director ORIC,
University of Engineering and Technology,
Peshawar

Subject: Hard copy of the project proposal "Real-time AI based Automated Wireless Truck Dispatching and Short-Term Planning Optimization System for Surface and Underground Mines" submitted to NCAI via email: on 24-7-2020.

Dear Sir,

Please find attached the hardcopy of the project proposal: "Real-time AI based Automated Wireless Truck Dispatching and Short-Term Planning Optimization System for Surface and Underground Mines" for onward processing and submission to the donor agency. The proposal was duly approved and signed by the Dean Faculty of CAME via email (email proof attached).

Yours sincerely,

Dr. Khan Muhammad
PI of the Intelligent Information Processing Lab
Assistant Professor,
Department of Mining Engineering,
UET Peshawar.

CC.

1. Chairman, Dept. of Mining Engineering, UET Peshawar.
2. Dean, Faculty of Civil Agricultural and Mining Engineering, UET Peshawar.

Date: 13-1-2020

The Vice Chancellor,
UET Peshawar

Through:


Chairman,
Department of Mining Engineering
UET Peshawar

Subject: NRPU Project call: submission dated 15-1-2020

Sir,


Please find attached NRPU project titled: "Geological Mapping of Industrial and Metallic Minerals by Applying Artificial Intelligence Techniques on Remote Sensing Data" for approval from ORIC and the Vice Chancellor UET Peshawar.

Sincerely,


Dr. Khan Muhammad
Assistant Professor
Department of Mining Engineering
UET Peshawar.

Forwarded for f.m.a.

Dir. ORIC


13/1/20 Asst. to Dean, C.A.M.
Department of Mining Engineering
Faculty of Engineering & Technology
UET Peshawar

Cc:

1. Dean Faculty of CAME
2. Director ORIC, UET Peshawar
3. Office Record



No. _____
Dated 13-1-2020

Vice Chancellor

The Director R&D,
Higher Education Commission,
Islamabad.

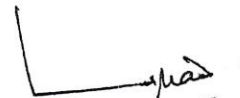
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It is ensured that the UET Peshawar will provide support for the establishment and smooth operation of this project, if funded by the HEC.


(Prof. Dr. Iftikhar Hussain)

Date: 06-02-2020

Director ORIC,
UET Peshawar

Through:


Chairman,
Department of Mining Engineering
UET Peshawar

Subject: GCF Project call: submission dated 07-02-2020

Sir,

Please find attached GCF project titled: "Development of Artificial Intelligence based Integrated Solutions Software for Mining Industry" for your perusal and approval from the Vice Chancellor UET Peshawar.

Sincerely,


Dr. Khan Muhammad
Assistant Professor
Department of Mining Engineering
UET Peshawar.

Forwarded for f.n.a.



Cc:

1. Dean Faculty of CAM Engineering
2. Office Record



Department of Mining Engineering
UNIVERSITY OF ENGINEERING AND TECHNOLOGY (UET)
PESHAWAR, PAKISTAN
Ph: 0092 (0) 91 9216796 Ext. 3031
Email: khan.m@uetpeshawar.edu.pk

Ref: No. 1540/Min.

Date: 27 July 2020

To,
Dr. Yasar Ayaz
Central Project Director,
National Centre of AI (NCAI),
H-12 Campus NUST
Islamabad,
051-90856030-31

Through:
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Yours sincerely,

Dr. Khan Muhammad
PI of the Intelligent Information Processing Lab
Assistant Professor,
Department of Mining Engineering,
UET Peshawar.

Director
Office of Research Innovation &
Commercialization (ORIC)
UET, Peshawar
27/07/2020

CC.

1. Chairman, Dept. of Mining Engineering, UET Peshawar.
2. Dean, Faculty of Civil Agricultural and Mining Engineering, UET Peshawar.



National Centre of Artificial Intelligence



Research Fund/Grant Proposal for Research/Prototype/Product/Services in AI and related technologies

*Note: Please fill this form and email to research.fund@ncai.nust.edu.pk along with the budget form

COVER SHEET FOR PROPOSAL

For NCAI use only
Proposal Identification Number

A1. TITLE OF PROPOSED PROJECT:

Real-time AI based Automated Wireless Truck Dispatching and Short-Term Optimization System for Surface and Underground Mines

A2. CLASSIFICATION/NAME OF PRODUCT/PROCESS/SERVICE/TECHNOLOGY TO BE CREATED

AI in Control Systems (Industry/ Intelligent Control);
Data Science/Mining

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