MAPSCOPE Private Limited and Ajoy Binay Institute of Technology

Introduction

This document outlines an understanding between MAPSCOPE Private Limited and Ajay Binay Institute of Technology, Cuttack for association concerning research and development in remote sensing and photogrammetry. The aim is to achieve greater understanding of application of modern technology in geo sciences among students. Exploratory research in areas of application of Artificial Intelligence techniques for satellite data enhancement and interpretation will be the priority area of the centre.

About MAPSCOPE Pvt Ltd

MAPSCOPE has been developing innovative products leveraging IT and GIS technology for sustainable outcomes. MAPSCOPE's activities include identification of product solutions in areas of remote sending and photogrammetry through innovation and solutioning. The company works in a range of sectors such as Urban Management, Forestry, Mining, Water Resources, Transportation.

About Ajay Binay Institute of Technology

Ajay Binay Institute of Technology (ABIT) is a part of the ABIT PMCA society established since 1987. The society operates an Architecture Institute, an Engineering Institute and an Industrial Training centre at Cuttack, Odisha. The engineering institute has been operating since 1998 and the Industrial Training Centre is operating since 2003. Over the last 2 decades, the group has produced thousands of quality engineers and technicians. Academic excellence, knowledge of contemporary technology and industry-institute partnerships have been the priority areas for ABIT.

Proposed Areas of Engagement

- Research & Development in the area of computing and image processing of Satellite Images.
- Skill development on earth sciences
- Technology Incubation and Introduction

Skill Areas

- Differential GPS and Its Usage
- Satellite Image Enhancement & Classification Techniques

Planned Activities

- Research in areas of Remote sensing and photogrammetry
- Seminar sessions at ABIT on Geographical Information systems, Geo Positioning Systems
- Special Projects

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Contribution / Responsibility Matrix

MAPSO	COPE PVt Ltd	ABIT Cuttack
	Provide guidance on skill, technology and process requirements.	Make available facility and equipment for the training and workshops
2.	Interact with the Faculty and Students.	2. Assign faculty mentor for coordination
3.	Identify research opportunities	and management
4.	Conduct seminars, Joint panel discussions	3. Conduct Research activities

Date: 4th August 2021

Leena Samantray

Principal - Ajay Binay Institute of Technology

S. Mishra

Director, Mapscope Pvt. Ltd.



The Social Planning Council of Peel

"Promoting social justice and citizen participation in the community"

Memorandum of Understanding ("MoU") Between

The Social Planning Council of Peel ("SPCP"), Mississauga, Ontario, Canada and the ABIT Group of Institutions, Cuttack, Odisha, India

Purpose:

To promote and facilitate quality of research & teaching.

 To establish innovative partnerships with various sectors for addressing major social justice & industrial issues.

 To provide research support and collaboratively working in selected United Nation's Sustainable Development Goals of Gender equality, Sustainable Cities & Communications, Clean Water & Sanitation, Affordable and Clear Energy, Zero Hunger, Quality Education, Decent Work & Economic Growth, Industry Innovation & Infrastructure.

Description of Agencies:

Social Planning Council of Peel (SPCP):

 The Social Planning Council of Peel (SPCP) is a leader in the areas of research, training, evaluation and program development. The SPCP has over 54 years of successfully building capacity on issues related to immigration, settlement, diversity management antiracism training, social inclusion, data management, health care, gender issues and quality of life measurement.

ABIT Group of Institutions:

ABIT group operates an Architecture college, Engineering College, MBA Institute and an
Industrial Training Institute in Cuttack, Odisha. The group was established in 1993 with
the aim to improve availability of skilled technical manpower for industries as well as to
enhance reach of technical education to rural Odisha. Over the last 22 years, the group
has built advanced infrastructure, engaged with premier institutes like IITs and NITs in the
region to build academic & research capability. In addition, there is continuous effort to
associate with Industries for better Industry orientation and skill readiness for students.

Time Frame of MoU: This MoU is from September 1, 2020 to August 31, 2022. The parties agree that this MoU is not intended to create a legal agreement or sharing any funds or do any religious activities. This is intended to create a global partnership in areas of research and training.

Termination of MoU:

Each of the partners in the collaborative has the right to withdraw from the collaborative with at least 4 weeks notice in writing.

We, the undersigned, have read and agree with this MoU:

SPCP

Dr. Srimanta Mohanty
Srimanta Mohanty, Ph.D.
Chief Executive Officer (CEO)
August 22, 2020

ABIT Group of Institutions

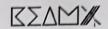
Satyada Shi Mishra
Director, ABIT Group of Institutions

Piyus Kuma Wohanty,
Asst. Professor,
Dept. of Business Administration,
Project Co-ordinator

386 Wattine Avenue, Mississariga, ON: 142 1X2 | info@spcpeel.com | www.spcpeel.com | www.portraltsofpeel.ca 7: 905.629.3

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BeamX TechLabs Private Limited and Ajay Binay Institute of Technology

Introduction

This document is an agreement between BeamX TechLabs Private Limited, Hyderabad, and Ajay Binay Institute of Technology, Cuttack for establishing a research and skill development center at Cuttack, which will cater to the advancement of software development skills for BeamX TechLabs.

About BeamX TechLabs Pvt Ltd.

BeamX TechLabs Private Ltd is a Technology Product Engineering and Incubation company, providing services to product-based startups. Established in the year 2017, BeamX has incubated 3 Tech startups and has offered full-scale and polyglot technology services ranging from, Ideation to Market,

About Ajay Binay Institute of Technology

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Areas of Engagement

- Exploration of new technology areas and Technology Incubation
- Competence Development in these areas by structured Training, Development and Pilot project
- Training and skill development module structuring considering guidance from BeamX TechLabs
 Private Limited

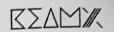
Skill Areas

- Artificial Intelligence and Data Science
- Linux Administration
- Dev-Ops on Cloud

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Activities and Timelines

Month-Year	Event / Activity Initiation
Aug 2021 – Dec 2021	 Skill development of resources in Statistical Methods, Skill development on Machine Learning Algorithms, Data Structures
Jan – Mar 2022	 Build supervised learning model based on the data supplied by BeamX TechLabs Assignments by BeamX TechLabs

Responsibilities

BeamX TechLabs Private Limited	ABIT Cuttack
 Provide guidance on the skill, technology, and process requirements. Interact with the resources on a regular basis to ensure a common understanding of requirements and issues. 	 Identify and incubate talent pool Develop Machine Learning methods to predict failures and anomalies in data from temperature sensors Make available facility and equipment for the work assignment Assign faculty mentor for the work execution

Commercials

BeamX TechLabs Private Limited offers a grant of Rs.1,00,000 (INR One Lakh only) for the above mentioned assignment with an additional expenditure of Rs. 50,000 for training, attending conferences, symposia.

France

Satyadarshi Mishra

Director
Ajay Binay Institute of Technology

Shree Kavi

Director

BeamX TechLabs Pvt Limited

Swillen A. A.

Cerebronics Private Limited and Ajay Binay Institute of Technology

Introduction

This document outlines an understanding between Cerebronics Private Limited and Ajay Binay Institute of Technology, Cuttack for association concerning development of contemporary and industry deployable skills in engineering students. Such association will lead to greater understanding of application of modern technology in areas of Sustainable Development.

About Cerebronics

Cerebronics is envisioned as an incubation center of ideas. Diversity of experience and skills along with appetite of the Cerebronics team to learn faster enables the setup to be domain and technology agnostic.

Cerebronics works with high spirit of pragmatism & partnership with other innovators to improve life and rebalance nature for future generations. The products are aligned towards 17 goals set by UNO for SDG(Sustainable Development Goal) 2030 for making world a better place to live.

About Ajay Binay Institute of Technology

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Proposed Areas of Engagement

- Application of Al in Education to digitize learning and promote modern educational techniques like Blended Learning & Flipped Classrooms.
- Autonomous/unmanned Agribot for large scale farms for planting, weed-picking, harvesting, tilling, spot treatment Skill Areas

Considering the area of work one of the following technical stacks will be involved

Robotics	Python,C		
Messaging System	MQTT		
OS	Unix, ROS		
Analytics	Python		
Big Data	Cassandra,Orient DB		
CI/CD	Docker		

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Code Repository	Gitlab		
Mobility	Android		

For robotics in farming

UI	Angular JS, HTML5,CSS3,D3,ChartJS,JavaScript(ES6)
Middleware	Java, Spring, REST API, Spring Batch
Big Data	Couchbase, Cassandra, Elastic Search, Orient DB
ETL	NIFI
Analytics	Python
CI/CD	Docker
Code Repository	Gitlab
os	Unix
Cloud	AWS
CI/CD	Ansible

Planned Activities

- Capacity building on technologies of choice Angular JS, Python, Cassandra, Java
- Understanding of Infrastructural Components GITLab, Docker
- Development of Sample Prototype Applications

Contribution / Responsibility Matrix

Cerebronics		ABIT Cuttack		
	1.	Provide guidance on skill, technology and	1.	Make available facility and equipment for
1		process requirements.		the training and workshops
	2.	Interact with the Faculty and Students.	2.	Assign faculty mentor for coordination
	3.	Conduct seminars and workshops		and management

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Satyadarshi Mishra

Director - Ajay Binay Institute of Technology

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Sujit Behera

CEO – Cerebronics

SPARC Private Limited and Ajay Binay Institute of Technology

Introduction

This document outlines an understanding between SPARC Private Limited and Ajay Binay Institute of Technology, Cuttack for association concerning research and development in Geographic information System (GIS) and innovative application of GIS in governance, monitoring & risk management. Such association will lead to innovative use of GIS and greater understanding of application of modern technology in geo sciences among students.

About SPARC Pvt Ltd.

SPARC Pvt. Ltd. is a full-fledged IT and GIS company in geospatial industry. Established in 1997, SPARC is a CMMi Dev3 GIS solutions and services organization that has implemented 500+ projects in diverse sector like Government, PSUs, Corporates and NGOs.

About Ajay Binay Institute of Technology

Ajay Binay Institute of Technology (ABIT) is a part of the ABIT PMCA society established since 1987. The society operates an Architecture Institute, an Engineering Institute and an Industrial Training centre at Cuttack, Odisha. The engineering institute has been operating since 1998 and the industrial Training Centre is operating since 2003. Over the last 2 decades, the group has produced thousands of quality engineers and technicians. Academic excellence, knowledge of contemporary technology and industryinstitute partnerships have been the priority areas for ABIT.

Proposed Areas of Engagement

- Research & Development in the area of computing and image processing of Satellite Images.
- GIS Awareness and Skill development
- Technology Incubation and Introduction
- Consultancy work in new GIS technology areas

Skill Areas

- Differential GPS and Its Usage
- Satellite Image Enhancement & Classification Techniques
- Drone based modern Surveying Techniques

Planned Activities

- Research in areas of Remote sensing and GIS.
- Seminar sessions at ABIT on Geographical information systems, Geo Positioning Systems
- Special Projects on GIS and Mapping

Contribution / Responsibility Matrix

Contribution / Responsibility Matrix SPARC PVL Ltd	ABIT Cuttack
Provide guidance on skill, technology and process requirements. Interact with the Faculty and Students. Identify research opportunities Conduct seminars, joint panel discussions.	Assign faculty mentor for coordinates and management Assign faculty mentor for coordinates

Date: 25th January 2021

Leena Samantray

Principal - Ajay Binay Institute of Technology

Kshetrabasi Jena

Vice President - SPARC



MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (herein after called as the 'MOU') is entered in to the Twenty First of August of Two Thousand and Nineteen (15.10.2019), by and between The Dy. Director & Head, Central institute of plastic Engineering and Technology,(CIPET), CSTS, (Govt. of India), Mancheswar Industrial Estate, Bhubaneswar-751010 [Hereinafter referred to as "First Party or CIPET"]

AND

The Principal, Ajay Binay Institute of Technology, ABIT-PMCA, Markat Nagar, Cuttack Development Authority, Sector – 1, Cuttack – 753014 [Hereinafter referred to as "Second Party or ABIT"] (First Party and Second Party are hereinafter jointly referred to as 'Parties' and individually as 'Party') as

WHEREAS:

A) First Party & Second Party believe that collaboration and co-operation between themselves will promote more effective use of each of their resources, and provide each of them with enhanced opportunities.

B) The Parties intent to cooperate and focus their efforts on cooperation within area of Skill Based Training.

C) Both Parties, being legal entities in themselves desire to sign this MOU for advancing their mutual interests.

D)Whereas, CIPET: CSTS, Bhubaneswar has well qualified expant faculty capable of imparting technical education, CAD/CAM and computer based training programs to the stablished facilities including sophisticated computer babons by the programs and is offering Diploma & ITI programs and other short term training programs.

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objective of programme is to impact training to the trainees of Ajay Binay Institute of ahology. The scope of the programme will include training through classroom lecture, delivisual presentation and hands on training on computer at Ajay Binay Institute of Schnology and in the CIPET campus as and when required as course curriculum.

NOW THEREFORE, IN CONSIDERATION OF THE MUTUAL PROMISES SET FORTH IN THIS MOU, THE PARTIES HERE TO AGREE AS FOLLO **CLAUSE 1 CO-OPERATION**

Both Parties are united by common interests and objectives, and they shall establish channels of communication and co-operation that will promote and advance their respective operations within the Institution and its related wings. The Parties shall keep each other informed of potential opportunities and shall share all information that may be relevant to secure additional opportunities for one another.

First Party and Second Party co-operation will facilitate effective utilization of the intellectual capabilities of the faculty of First Party providing significant inputs to them in developing suitable teaching / training systems, keeping in mind the needs of the industry, the SecondParty.

The general terms of co-operation shall be governed by this MOU. The Parties shall cooperate with each other and shall, as promptly as is reasonably practical, enter into all relevant agreements, deeds and documents (the 'Definitive Documents') as may be required to give effect to the actions contemplated in terms of this MOU. The term of Definitive Documents shall be mutually decided between the Parties. Along with the Definitive Documents, this MOU shall represent the entire understanding as to the subject matter hereof and shall supersede any prior understanding between the Parties on the subject matter hereof.

CLAUSE 2 SCOPE OF THE MoU

The budding graduates from the institutions could play a key role in technological up-gradation, innovation and competitiveness of an industry. Both parties believe that close co-operation between the two would be of major benefit to the student community to enhance their skills and knowledge.

1. Curriculum Design: Second Party will give valuable inputs to the First Party in teaching / 16- 10.2019 training methodology.

2. ROLE & SCOPE of Ajay Binay Institute of Technology

Ajay Binay Institute of Technology A shalk larrange saul provide adequate space and required equipment's and will also phovide necessary to him aids.

Ajay Binay Institute of Technology will provide with refreshment. MOBILE: 9437277738

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III. A Blinay Institute of Technology will be responsible for enrollment of the participants in

Alay Binay Institute of Technology shall provide programme coordinator for smooth

amctioning of programme.

Alay Binay Institute of Technologyshall not conduct the above said training programme independently at his own and any other campus in an around Cuttack, Also Ajay Binay Institute of Technology can not propose employment to CIPET faculty or cannot recruit/appointed any faculty of CIPET.

ROLE & SCOPE OF CIPET

PIPET will deploy CAD/CAM faculty for imparting training to the candidates of Ajay institute of Technology

PET will issue certificates to the trained candidates after completion of training.

PET will help to provide placement assistance to trained student of said course.

RESFORMANCE DURING TRAINING AND DISCIPLINE

All trainees shall have to abide by the performance and disciplinary norm's as CIPET may decide from time to time. CIPET shall have full and final authority to take action against a trainee during the course of training on grounds of performance and /or discipline.

5. EVALUATION AND CERTIFICATION

All trainees shall have to abide by the evaluation norms and procedures of CIPET, CSTS Bhubaneswar which may be decided from time to time. CIPET shall have full and final authority to take action against a trainee during the course of training on grounds of performance in evaluation. The certificates will be issued by CIPET: CSTS, Bhubaneswar.

6. REVIEW AND MONITORING BY CIPET: CSTS, BHUBANESWAR

The review and monitoring of the training programs shall be done by CIPET CSTS, Bhubaneswar.

7. SELECTION METHODOLOGY

- Ajay Binay Institute of Technology will arrange the candidates as per their educational courses curriculum.
- Both Parties to obtain all internal approvals, consents, permissions, and licenses of whatsoever nature required for offering the Programmes on the terms specified herein.

8. FEES PAYMENT BY THE CANDIDATES

The candidates can register for those courses by paying the fees to Ajay Binay Institute of Technology, Cuttack

9. PAYMENT TERMS

Stage 1: 70% of the total payment before commencement of training.

Stage 2: 30% of the total payment after completion of training.

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REGD. No.- 22/08 MOBILE: 9437277738

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CLAUSE 3 INTELLECTUAL PROPERTY

Nothing contained in this MOU shall, by express grant, implication, Estoppel or otherwise. create in either Party any right, title, interest, or license in or to the intellectual property (including but not limited to know-how, inventions, patents, copy rights and designs) of the other Party.

CLAUSE 4 VALIDITY

No CN 12 Mis MOU is valid for one year and extendable from time to time on mutual basis. For any BHURNESHOLD arising out of this MOU between the two parties, the disputes shall be resolved amicably by mutual discussion. MAENT

Both Parties may terminate this MOU upon 30 calendar days' notice in writing. In the bught of Termination, both parties have to discharge their obligations

CLAUSE 5 RELATIONSHIP BETWEEN THE PARTIES

It is expressly agreed that First Party and Second Party are acting under this MOU as independent contractors, and the relationship established under this MOU shall not be construed as a partnership. Neither Party is authorized to use the other Party's name in any way, to make any representations or create any obligation or liability, expressed or implied, on behalf of the other Party, without the prior written consent of the other Party. Neither Party shall have, nor represent itself as having, any authority under the terms of this MOU to make agreements of any kind in the name of or binding upon the other Party, to pledge the other Party's credit, or to extend credit on behalf of the other Party

First Party

Second Party

Any divergence or difference derived from the interpretation or application of the MoU shall be resolved by arbitration between the parties as per the Arbitration Act, 1996. The place of the arbitration shall be at District Head Quarters of the First Party. This undertaking is to be construed in accordance with Indian Law with exclusive jurisdiction in the Courts of Bhubaneswar.

16.10.2019

SAMARENDRASAHOD NOTARY, BHUBANESWAR GOVT. OF ODISHA, INDIA REGD. No.- 22/08

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