

Mar Ephraem

College of Engineering and Technology

(Run by Catholic Diocese of Marthandam)

Approved by AICTE | Affiliated to Anna University | Accredited by NAAC | DST FIST Supported Institution

Accredited by NBA for Mechanical, CSE & Civil (2022-2025)(Tier II)

Malankara Hills, Elavuvilai, Marthandam – 629 171, Kanniyakumari District, Tamilnadu

Department

of

Computer Science and Engineering

MEMORANDUM OF UNDERSTANDING

This Binding Memorandum of Understanding (hereafter "Memorandum" or "MOU") is dated this November 20,2015

BETWEEN

Mar Ephraem Digital Solution having its registered office at Malankara Hills, Elavuvilai (hereinafter referred to as "First Party" which expression shall mean and include its legal heirs, administrators and permitted assigns),

AND

Department Of Computer Science And Engineering having its registered office at Malankara Hills, Elavuvilai (hereinafter referred to as "Second Party" which expression shall mean and include its legal heirs, administrators and permitted assigns).

(referred to herein as "Parties" or individually as "Party")

WHEREAS

A. The Parties are interested in working together in connection with the Purpose which is described in this Memorandum.

B. This Memorandum sets out the initial relationship between the Parties as well as the respective rights and responsibilities of each Party.

C. Each Party respectively is expected to act in good faith in accordance with this Memorandum.

NOW THEREFORE IN CONSIDERATION OF the premises and the mutual covenants set forth herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto covenant and agree as follows:

(1) PROJECT AND PURPOSE

- a) The Parties intend to investigate the prospect of working together and/or actually work together, on a project which will be referred to as Training and Consultancy works("the Project").
- b) The Project has the following purpose("the Purpose"):

 Training the students in Web Development

 Hands-on Programming in HTML< CSS,PhP,MYSQL

 Consultancy work with the co-ordination of department staff
 Include students of CSE for the project work

(2) BINDING

a) The Parties hereby acknowledge and agree that the terms of this Number and are intended to be legally binding on the Parties hereto.

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3) CHANGES TO MEMORANDUM

- a) This Memorandum may be amended at any time by agreement between the Parties.
- b) Any changes to this memorandum must be made in writing and signed by the Parties.

(4) GENERAL OBLIGATIONS

- a) Notwithstanding the non-binding nature of this Memorandum, the Parties will act in good faith and will use their best endeavours to achieve the Purpose and to give effect to the terms of this Memorandum.
- b) The Parties hereby acknowledge and agree that they will each respectively perform all acts and execute all documents as reasonably required in order o give effect to the terms of this Memorandum.
- c) Each Party agrees to cooperate in the spirit of mutul understanding and goodwill in order to develop the Parties relationship with one another and in order to pursue the Purpose.

(5) ROLES OF PARTIES

a) Mar Ephraem Digital Solution will have the following obligations in relation to the project:

Effectively complete the work in time

Schedule the time for student training

Schedule the time for department meeting regarding the training and project

b) Department Of Computer Science And Engineering will have the following obligations in relation to the project:

Appoint the staff co-ordinator for consultancy work

Allot time to students for training

(6) CONFIDENTIALITY

The Parties each hereby acknowledge and agree that in connection with this Memorandum, they may have access to information that is confidential and/or commercially valuable to one or more of the other parties("Confidential Information").

In relation to any Confidential Informationm:

- i) the Receiving party shall keep the Confidential information confidential and secret.
- the Receiving party shall only use the Confidential information for the purpose of working in good faith on the Project in accordance with this Memorandum.

(7) RENEWAL, TERMINATION AND AMENDMENT

a) This MOU shall remain in force for a period of Ten Years from the date of the last signature.

b) This MOU may be extended by the written consent of the parties.

c) This MOU may be terminated by either party given written notice to the oth

MARTHANDAM - 629 171
KANYAKUMARI DISTRICT
TAMILNADU, INDIA

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least 90 days in advance of the stated termination date. Termination of this MOU shall not affect activities in progress pursuant to specific activity agreements, which shall continue until concluded by the parties in accordance with their terms or as otherwise agreed to by the parties in writing.

d) This MOU may be amended only by the written consent of the parties.

SIGNED BY THE PARTIES THIS NOVEMBER 20,2015



Mar Ephraem Digital Solution

EGE OF ENGINEERING

MALANKARA HILLS

ELAVUVILAI

MARTHANDAM - 629 171

KANYAKUMARI DISTRICT

TAMILNADU, INDIA

TAMILNADU, INDIA

ADOTOMA

Department of Computer Science and Engineering
HEAD OF CSE DEPARTMENT

Mar Ephraem College of Engineering and Technology
Metantars Hills, Environ, Martinudes - 622 171, KK Diet.







MEMORANDUM OF UNDERSTANDING

on co-operation between

College of Computing and Informatics WOLKITE UNIVERSITY

(here in after referred to as "WKU")

and

Mar Ephraem College of Engineering and Technology

(here in after referred to as "Mar Ephraem")

College of Computing and Informatics WOLKITE UNIVERSITY

and

Mar Ephraem College of Engineering (are referred to collectively herein as the "Parties")

WHEREAS:

WOLKITE UNIVERSITY, located at the center of the nation, Ethiopia, in Southern Nation, Nationalities and Peoples Region (SNNPR), is a Federal Government Public University. WKU has a vision to be one of the best 5 universities among the 32 federal public universities in Ethiopia by the year 2020 and among best known universities internationally by the year 2025 in the perspective of developmental relevance, efficiency and quality services. WKU focuses on Engineering and Technology, Computing and Informatics, Natural sciences and Social sciences and Economics to support the economic development of societies, supported by science and information technology. WKU has commenced its academic, research and community service programs in 2011 with ample opportunities of expansion. It has now 32 departments including 9 programs in Engineering and Technology; 4 programs in Computing and informatics and other discipline, with about 300 instructors.

WOLKITE UNIVERSITY's mission includes producing internationally competent graduates, supply of relevant technology for development of enterprises and playing developmental roles through community service to the respective federal sector development programs, to the surrounding communities, and to the Southern Ethiopia region, in general.

WKU implements innovative multi-disciplinary activities particularly in the field of social science, management science, natural science, and technology for the benefit of humanity, so as to support the academic development with maintaining secularism, morale and ethics to the development of civilization.

AND WHEREAS:

Mar Ephraem College of Engineering and Technology (Mar Ephraem) is a premier engineering college located in a picturesque part of Tamil Nadu in far South India. The college is a part of the Malankara Catholic Church. The college's mandate is high value education for students throughout India and the world. The college is located within the Catholic Diocese of Marthandam, Kanyakumari District, Tamil Nadu. The purpose of Mar Ephraem is to provide higher education opportunities to the young men and women in the rural and underserved area of Tamil Nadu. Our college has the approval of "All India Council for Technical Education (AICTE)", New Delhi and affiliated to Anna University, Chennai.

Vision: A world class institution of higher learning renowned for its excellence in Science and Technology and for its commitment to the holistic development of the individual and society

Mission: To provide quality and value based education for the industrial and socio-economic development of the nation with its diverse cultures through relevant programs in teaching and learning, research, extension and community involvement.

Goals:

- 1. To provide value based engineering education that produces engineers who are innovative, entrepreneurial, globally competitive and vested with high values and understanding of their professional social and ethical responsibilities.
- 2. To provide general and specific soft skills to the engineers to advance the knowledge and competence of engineers for successful careers and life long learning.
- To initiate research activities focused on need based areas in engineering and technology which enhances creative and innovative endeavors and promotes social development
- 4. To motivate engineers to participate in community activities that will serve as avenues for lab to land application of knowledge in engineering and technology.
- 5. To establish linkages and MOUs with National, International, Governments, Industries and other institutions in the areas of engineering education, research and extension services



AND WHEREAS:

There are many areas in which mutual cooperation and joint efforts would assist both Parties to reach their strategic goals of providing globally relevant education and experiences to their students, faculty and staff.

THEREFORE:

The Parties hereby agree to establish a joint working relationship in order to mutually support and co-ordinate activities, including the following (the "Activities"):

- 1. Mar Ephraem shall assist WKU in
 - a. Preparing Layout for Laboratories as per requirements.
 - b. Establishing laboratories as per requirements
 - c. Demonstrating Laboratory experiments
 - d. Training faculty to conduct projects, consultation and research on laboratories
- Mar Ephraem shall provide research guidance and training to faculty and students of WKU
- 3. WKU shall invite Professors and Researchers as guest professors, visiting faculty and shall provide travel, working expense and accommodation to the invitees.
- 4. Mar Ephraem shall train faculty of WKU in effective teaching Learning Methodologies.
- Mar Ephraem and WKU shall do collaborative projects and research based on need analysis of both countries and subject to availability of funds.
- 6. Both parties shall conduct joint workshops, training programs and Value added courses.
- 7. Both parties shall carry externally funded projects jointly.
- 8. Both parties shall mutually help faculty to carry out higher education.
- 9. Mar Ephraem shall assist WKU in improving skills of faculty and forming advanced course modules & curriculum.

This Memorandum of Understanding commits the Parties to establish a working relationship to consider and explore activities that are to the mutual benefit of the Parties; however nothing in this Memorandum of Understanding obligates or commits either Party to participate in any activity. Rather, the details and specific requirements of any activity will be negotiated separately in good faith and the terms and conditions thereof will be set forth in a separate operating agreement signed by both Parties.

Each Party (the "Receiving Party") agrees to treat as confidential all information about or involving the other Party to which the Receiving Party or any of its agents, employees or subcontractors receives, has access to, or is otherwise entrusted with or has disclosed to it in connection with this Memorandum of Understanding, including without limitation: security infrastructure of the other Party; financial or other business records, third-party business confidences, information concerning planned policies or proposals or any other information pertaining to the other Party or its finances, operations or intellectual property, and the Receiving Party shall not, without first obtaining the consent of the other Party and except as may be required by law, disclose or release nor permit the disclosure or release to any third party any such information or any portion thereof or use any such information for any purpose whatsoever other than the legitimate purposes of this Memorandum of Understanding. The obligations of confidentiality shall survive the termination of this Memorandum of Understanding. Any party/





parties working against this MOU result in termination of it and the conflict will be handled by the arbitrators of their choice.

This Memorandum of Understanding is subject to revision, renewal, or cancellation by mutual consent and becomes effective upon completion of signatures.

Communication:

Any Notice, request, document, or other communication submitted by both Mar Ephraem and WOLKITE UNIVERSITY under this agreement will be in writing or by other available source of communication, to the following contact person:

Dr.Sisay Shewamare Academic Affairs Vice President, Wolkite University, P.O.Box: 07, Wolkite,

Guraghe Zone, SNNPR, Ethiopia Email: acvpresident@wku.edu.et Office: +251-11-322-0154

Mobile: +251- 914315556 Fax: +251 - 11-322-0141

Rev Fr.Prem Kumar The Correspondent, Mar Ephraem College of Engineering and Technology, Malankara Hills, South India, 629171 Email: frprem58@gmail.com, Ph. +91-9443163390, +91-04651-271111

Agreed this on the 05th day of February 2015

Academic Affairs For Wolkite University

Dr.Sisay Shewamare, Academic Affairs Vice President, The Control of the President, The President Th

Wolkite University

Ethiopia

Mr.Jamal Ahmed Andeta,

Dean, College of Computing & Informatics,

Wolkite University

Ethiopia

For Mar Ephraem

Rev Fr.Prem Kumar Correspondent/ Secretary

Mar Ephraem

India

ELAVUVILAI - 629 17 MARTHANDAM KANYAKUMARI DIS

ALANKARA HILL

Dr.A.Lenin Fred Principal Mar Ephraem India

MEMORANDUM OF UNDERSTANDING

BETWEEN

Sree Tech, Madurai And

Department of Computer Science And Engineering

Mar Ephraem College Of Engineering And Technology

1.0 PURPOSE

The purpose of this MOU is to develop academic and educational cooperation on the basis of equality and reciprocity and to promote sustainable partnerships and mutual understanding between the Department of Computer Science and Engineering, Mar Ephraem College of Engineering and Technology (hereinafter referred to as "Mar Ephraem") and Sree Tech, Madurai, Tamil Nadu. Both Mar Ephraem and Sree may be referred to individually as the "party" or collectively as the "parties".

2.0 SCOPE OF ACTIVITIES

Mar Ephraem and Sree aim to undertake cooperation in areas that may include, but not restricted to, the following:

- 1) Soft Skill Training
- 2) Internship and Placement
- Organization and participation in seminars, symposia, short-term academic programs

3.0 ACTIVITY AGREEMENTS

Before any activities may be implemented, the parties shall discuss the relevant issues to the satisfaction of each party and enter into specific activity agreements based on the mutually agreed objectives and outcomes of the activity. Activity agreements will include such terms as the following:

- 1) Elaboration of the responsibilities of each parties for the agreed upon activity
- 2) Specific schedules for the activity
- 3) Budgets and sources of finances for the activity
- 4) Any other items deemed necessary for the efficient management of the activity

4.0 RENEWAL, TERMINATION AND AMENDMENT

4.1 This MOU shall remain in force for a period of three academic years from the date of the last signature. This MOU may be extended by the written consent of the parties.

4.2 This MOU may be terminated by either party given written notice to the other party at least 90 days in advance of the stated termination date. Termination of this MOU shall not affect activities in progress pursuant to specific activity agreements, which shall continue until concluded by the parties in accordance with their terms or as otherwise agreed to by the parties in writing.

4.3 This MOU may be amended only by the written consent of the parties.

In witness thereof, the parties have offered their signatures hereto:

HEAD OF GST DEPARTMENT
or Entrees Cologs of Englishment and Technology

- Mark Explorer or Colog growth Impone erring

and Technology

Date: 19/10/2016

Witness: 20/10/2016

Managing Director

Date: 19/10/2016

Witness:

Date: 19.10.2016

DATED THIS 4th DAY OF DECEMBER 2017

Between

NANYANG TECHNOLOGICAL UNIVERSITY

And

MAR EPHRAEM COLLEGE OF ENGINEERING AND TECHNOLOGY

RESEARCH COLLABORATION AGREEMENT

THIS	AGREEMENT is entered in	to on d	ay of 2017 betwee	en:				
(1)	NANYANG TECHNOLO Singapore 639798, and ("NTU");	GICAL UN acting thro	IVERSITY, located at 50 Nanyang ugh its Lee Kong Chian School of N	Avenue, /ledicine				
	And							
(2)	MAR EPHRAEM COLLE Malankara Hills, Elavuv ("MECET").	EGE OF El vilai, Marth	GINEERING AND TECHNOLOGY, lo andam 629171, Kanyakumari Distric	cated at t, India				
WHE	REAS:							
(A)	NTU and MECET wish to collaborate on the Research Project on the terms and conditions hereinafter set out.							
THE	REFORE the Parties hereby	agree as f	llows:					
1.	DEFINITIONS							
1.1.	In this Agreement and in the Schedules to this Agreement, unless the contex otherwise requires, the following expressions shall have the following meanings:							
	"Affiliate"	- 10	neans any corporation, company or oth which: i) is Controlled by the relevant Party ii) Controls the relevant Party; or iii) is under common Control v relevant Party.	у:				
			For this purpose, "Control" means (a) ifty percent (50%) of the controlled outstanding shares or ownership epresenting the right to make decision entity are owned or controlled, directly, by the controlling entity, and/ocontrolling entity possesses, directly or in the power to influence the decision process, the direction of management policies of the controlled entity.	entity's interes for such rectly or or (b) the indirectly in-making				
	"Background IP"		means any IP owned and/or controll Party, or which such Party has the n rights to use for or in the Research Pro which was conceived or reduced to either:	ecessary				
		(a)	prior to the commencement of the performed pursuant to the Research Pro					

 (b) outside the scope of the work performed pursuant to the Research Project;

> and which is used or disclosed by such Party in connection with the Research Project,

"Business Day"

 means a day other than a Saturday, Sunday or a gazetted public holiday in Singapore.

"Confidential Information"

- means any device, materials, samples, software programmes, documents, data, graphics, specifications, technical information, or any other information, collectively referred to as "Information", that is disclosed by either a Party or a Party's Affiliate or on their behalf ("Discloser") to the other Party ("Recipient") in connection with the Research Project and/or this Agreement, whether oral, written, visual or otherwise, or hard or electronic soft copy, which:
- in the case of a tangible disclosure, is marked by the Discloser as "Confidential" or "Proprietary" or with other words of similar import; or
- (b) in the case of an oral or visual disclosure, the Discloser identifies such disclosure as being confidential concurrent with the oral or visual disclosure and such Information has been confirmed and designated in writing as confidential within fourteen (14) days after its disclosure.

"Effective Date"

means 1st October 2017.

"Intellectual Property" or "IP" means Confidential Information, Know-how, patents, patent applications, copyright, design rights, semiconductor layout rights, rights relating to computer software, and any other industrial or intellectual property rights, registrable, registered or otherwise.

"IP Applications"

 means any patent application, division, continuation or continuation-in-part, and any patent issued thereon or reissue or extension thereof, and any other form of application for registration of copyrights, trademarks, designs and other IP rights relating to the relevant Project IP.

"IP Expenses"

 means all actual and out-of-pocket costs and expenses (including legal and other professional fees, Goods and Services Tax and stamp duties) in relation to the preparation, filing, prosecution and maintenance of the relevant IP Applications.

"Joint IP"

 means the Project IP that is jointly-owned by NTU and MECET as defined in Clause 7.4 of this Agreement.

"Know-how"

means any methods, techniques, processes, discoveries, inventions, innovations, unpatentable processes, technical information, specifications, recipes, formulae, designs, plans, documentation, drawings, data and other technical information and identified in a tangible form.

"Lead Party"

 means the Party appointed pursuant to Clause 7.5(a) of this Agreement to take the lead in the preparation, filing, prosecution and maintenance of the relevant IP Applications and the licensing of the relevant Joint IP in accordance with the terms of this Agreement,

"Licensing Expenses"

 means all actual and out-of-pocket costs and expenses (including legal and other professional fees, Goods and Services Tax and stamp duties) in relation to the commercialisation of the relevant Joint IP and/or IP Applications.

"MECET IP"

means the Project IP that is solely-owned by MECET as defined in Clause 7,3 of this Agreement.

"Net Revenue"

 means the Revenue less: (i) Overhead Costs chargeable by the Lead Party; (ii) Licensing Expenses incurred by a Party; and (iii) any applicable taxes payable on the transference of Net Revenues to the other Party in relation to the commercialisation of the relevant Joint IP and/or IP Application.

"NTU IP"

 means the Project IP that is solely-owned by NTU as defined in Clause 7.2 of this Agreement.

"NTUitive"

means Nanyang Technological University – NTUitive Pte Ltd (Company Registration No. 199502518G), a wholly-owned subsidiary company of NTU which manages and commercialises IP for NTU.

"Overhead Costs"

 means fifteen percent (15%) of the Revenue that may be charged by the Lead Party for its commercialisation efforts.

"Parties"

means NTU and MECET collectively, and a "Party" means any one of them,

"Project IP"

means any IP created in the course of or resulting from the Research Project that fall within the deliverables of the Research Project as set out in Schedule 1.

"Research Project"

means the research project titled "Human MR Image Processing System" to be carried out under this Agreement, which details are set out in Schedule 1.

"Revenue"

means the gross consideration received from the commercialisation of any Joint IP and/or IP Application under a commercial license agreement concluded pursuant to this Agreement.

"Sharing Ratio"

 means the ratio by which all IP Expenses and Net Revenue are to be shared between the Parties as specified in or agreed upon by the Parties pursuant to Clause 7.4 of this Agreement, and subject to Clause 7.5(g) of this Agreement.

"Term"

 means the period of this Agreement as specified in Clause 3 of this Agreement.

- 1.2. In this Agreement, except where the context indicates to the contrary:
 - "person" includes any individual, body corporate, joint venture, trust, agency or other body;
 - (b) words importing the singular shall include the plural and vice versa and words denoting a given gender shall include each other gender;
 - headings are inserted for ease of reference only and shall not affect the interpretation of this Agreement;
 - references to clauses or sub-clauses shall have reference to clauses or subclauses of this Agreement; and
 - (e) all schedules and attachments to this Agreement form part of this Agreement.

2. STATEMENT OF WORK

- 2.1. The Parties agree to collaborate on the Research Project and shall use reasonable endeavours to carry out in a diligent manner those parts of the Research Project allocated to it, in accordance with the details specified in <u>Schedule 1</u>. The Parties recognise that the Research Project is research in nature and hence completion within the period of performance or the achievement of the deliverables or milestones specified in <u>Schedule 1</u> cannot be guaranteed.
- 2.2. The Parties are committed to maintaining the highest standards of research integrity and the responsible conduct of research, as defined in the Singapore Statement on Research Integrity (www.singaporestatement.org/statement.html). The Parties agree to cooperate in investigation(s) which result from any accusations of research misconduct and malpractice arising from the Research Project.

3. TERM OF AGREEMENT

3.1. This Agreement shall come into force on the Effective Date and shall continue for a period of two (2) years (the "Term") unless terminated earlier in accordance with the terms of this Agreement. Notwithstanding the foregoing, this Agreement may be extended by mutual written agreement of the Parties.

4. PRINCIPAL INVESTIGATOR

- The Research Project shall be supervised and coordinated by Prof. Balazs Gulyas
 of NTU ("NTU Principal Investigator" or "NTU PI") and Prof. A. Lenin Fred of
 MECET ("MECET Principal Investigator" or "MECET PI").
- 4.2. If, for any reason, any of the Principal Investigators are unable to continue to serve as Principal Investigator under the Research Project, and a successor acceptable to the Parties is not available, this Agreement may be terminated by any of the Parties and the provisions of Clause 11 shall apply.

RESEARCH PROJECT FUNDING

 The Parties shall provide the funding and/or contributions to the Research Project in accordance with Schedule 1.

CONFIDENTIAL INFORMATION

- 6.1. Each Recipient agrees to use the Discloser's Confidential Information only for the purposes of the Research Project and/or this Agreement, unless otherwise expressly agreed to in writing by the Discloser.
- 6.2. Each Recipient shall use the same degree of care regarding the Confidential Information as it uses in protecting and preserving its own confidential information of like kind to avoid disclosure or dissemination thereof, but in no event less than a reasonable degree of care.
- 6.3. Each Recipient agrees to make the Discloser's Confidential Information available only to those of its Affiliates, employees, officers, directors, legal or professional advisors, or students ("Representatives") who have a need to know the same for the purposes of the Research Project and /or this Agreement and who are bound by obligations of confidentiality. The Recipient shall not disclose the Confidential Information to any third party except for any third party Representatives as provided herein.
- 6.4. Each Party agrees that the obligations of confidentiality contained herein shall not apply to any Information which:
 - was publicly available prior to the date of disclosure under this Agreement or becomes publicly available thereafter through no wrongful act or omission on the Recipient's part;
 - (ii) was known to the Recipient prior to the date of disclosure under this Agreement or becomes known to the Recipient thereafter, without restriction as to use or disclosure, from a third party having an apparent bona fide right to disclose the Information, as evidenced by written records;

- (iii) is independently developed by the Recipient, as evidenced by written records; or
- (iv) is disclosed with the Discloser's prior written consent.
- 6.5. Where the Recipient is required to disclose Confidential Information pursuant to an order of a court of competent jurisdiction or by law, the Recipient may disclose such Confidential Information provided that the Recipient, if not legally prohibited from so doing, promptly notifies the Discloser and cooperates reasonably with efforts by the Discloser to contest or limit the scope of such order or legal requirement to disclose.
- 6.6. The Parties agree that any breach of confidentiality under this Clause 6 may cause irreparable injury to the Discloser and monetary damages may not be an adequate remedy for such breach. Accordingly, the Discloser shall be entitled to seek equitable relief against any such breach, including injunctions, and this shall be without prejudice to the Discloser's other rights and remedies under law.
- 6.7. The obligations of confidentiality set out in this Clause 6 shall survive for a period of five (5) years from the date of expiry or early termination of this Agreement.

INTELLECTUAL PROPERTY

- 7.1. Each Party shall remain the owner or authorised user of all its Background IP and nothing in this Agreement, save as specifically provided for herein, shall be deemed to grant impliedly or otherwise, ownership of or rights of use of such Background IP to the other Party. Each Party may, at its sole discretion, disclose its Background IP to the other Party for use in connection with the Research Project, In respect of such Background IP which a Party expressly permits may be used under the Research Project, such Party hereby grants the other Party only a non-exclusive, royalty-free, fully paid-up right to use such Background IP to the extent the same is necessary for the purpose of the Research Project and for no other purpose. It is agreed that no Party shall be compelled to disclose any of its trade secrets or Confidential Information as part of its Background IP licensed hereunder.
- 7.2. All Project IP created or developed solely by NTU, its employees, staff, servants, students, or agents, without any intellectual input or contribution from MECET, shall be the sole and exclusive property of NTU ("NTU IP"), and its disposition shall be at NTU's sole discretion. For the avoidance of doubt, intellectual input or contribution does not include any provision of funding or equipment to the Research Project
- 7.3. All Project IP created or developed solely by MECET, its employees, staff, servants or agents, without any intellectual input or contribution from NTU, shall be the sole and exclusive property of MECET ("MECET IP"), and its disposition shall be at MECET's sole discretion. For the avoidance of doubt, intellectual input or contribution does not include any provision of funding or equipment to the Research Project.
- 7.4. All Project IP created or developed jointly by NTU and MECET shall be jointly owned in equal undivided shares ("Joint IP"). The Parties agree that the Sharing Ratio shall be determined in good faith at a later stage and agreed in writing within three (3) months from the date of submission of a technology disclosure in respect of the relevant Joint IP. All Joint IP shall be managed and commercialised by the Parties in accordance with the provisions of Clause 7.5 and Clause 7.6 below.

- 7.5. The Parties shall manage all IP Applications for Joint IP in accordance with the following provisions:
 - (a) The Parties shall appoint one of the Parties to take the lead in the preparation, filing, prosecution and maintenance of all such IP Applications, as well as the commercialisation of the Joint IP (the "Lead Party") in accordance with the terms of this Agreement.
 - (b) The Parties shall jointly determine the filing of any such IP Applications. All such IP Applications shall be filed in the joint names of NTU and MECET as the joint owners thereof.
 - (c) The Lead Party shall provide the other Party:
 - a copy of any draft of such IP Application sufficiently prior to filing to permit the other Party reasonable opportunity to review and make comments thereon;
 - copies of all substantive communications received from patent offices with respect to such filings; and
 - copies of all grants or certificates of registration of any such IP Applications.

The Lead Party shall further ensure compliance with all applicable Singapore patent laws and regulations when filing the IP Applications, including obtaining any necessary national security clearances from the Intellectual Property Office of Singapore prior to any foreign filings of IP Applications.

- (d) The Parties shall share all IP Expenses in accordance with the Sharing Ratio. The Lead Party shall maintain adequate records showing all IP Expenses incurred. In the event that the Lead Party anticipates the possibility of any extraordinary expenditure of more than Singapore Dollars Twenty Five Thousand (S\$25,000) in relation to any single event arising from the preparation, filing, prosecution or maintenance of any IP Applications, the Lead Party shall provide the other Party with full particulars and shall discuss with the other Party a mutually acceptable course of action prior to incurring such expenditure. The other Party shall pay for its share of the IP Expenses after receiving an invoice for such IP Expenses.
- (e) The Parties agree to give each other reasonable assistance in obtaining the IP protection for the Joint IP and in the filing, preparation and prosecution of any IP Applications filed and will cause to be executed all assignments and other instruments and documents as may be necessary or appropriate.
- (f) The Lead Party shall not abandon the prosecution or maintenance of any IP Application without the prior written consent of the other Party, such consent not to be unreasonably withheld.
- (g) In the event that one Party elects not to seek or maintain an IP Application in respect of a particular country or not to share in the IP Expenses thereof (the "Non-Electing Party"), the Non-Electing Party shall notify the other Party of such decision (the "Notification").
 - (i) Notwithstanding the Notification, the Non-Electing Party shall continue to be liable to pay for its share of the IP Expenses incurred or committed or arising from work carried out prior to the date of such

Notification.

- (ii) The other Party (the "Electing Party") shall have the right to seek or maintain such IP Application in such country in both Parties' name at the Electing Party's own expense, and shall have full control over the prosecution and maintenance thereof.
- (iii) The Electing Party shall have the right to commercialise the IP Application in such country and to retain any and all income generated from such commercialisation.
- (iv) The Non-Electing Party shall cease to have any rights:
 - (1) to commercialise such IP Application in such country; and
 - to receive any income generated from the commercialisation of such IP Application in such country.
- 7.6. The commercialisation of the Joint IP shall be governed by the following provisions:
 - (a) The Parties agree to cooperate to achieve the commercial development of the Joint IP and shall keep each other informed of all interest expressed by third parties concerning the commercial development of the Joint IP.
 - (b) The Lead Party shall be responsible for seeking licensees for the commercialisation of the Joint IP and for negotiating, on behalf of itself and the other Party, terms of a commercial license agreement with any prospective licensee. The Lead Party shall negotiate reasonable terms and provisions which preserve the rights of both Parties hereto.
 - (c) All such commercial license agreements shall be on terms to be negotiated in good faith and shall provide:-
 - for the licensee to indemnify and to defend and hold NTU and MECET harmless from any cost, expense, claim, proceedings, judgment, damages, costs (including legal costs on a full indemnity basis) arising from any IP rights infringement or product liability claims;
 - for immediate termination of the license if the licensee asserts a patent or other IP right against NTU and MECET in respect of the licensed subject matter;
 - for NTU and MECET to retain the right to use the Joint IP for research and other non-commercial purposes;
 - for NTU and MECET to disclaim liability for any indirect, special, consequential, incidental or economic loss or damages resulting from the licensee's use or inability to use the licensed subject matter;
 - for disclaimers of all warranties of merchantability or fitness for a particular purpose with respect to the licensed subject matter; and
 - (vi) that there will be no unauthorised use of the name of either NTU or MECET.

- (d) The Lead Party shall keep the other Party informed as to any licensing negotiations. All licenses with respect to the Joint IP shall be made jointly in the name of both Parties and shall be administered by the Lead Party.
- (e) Subject to Clause 7.5(g)(iv), all Net Revenue shall be shared by the Parties in accordance with the Sharing Ratio. All Licensing Expenses incurred by any Party in an effort to commercialise the Joint IP and/or IP Applications shall be repaid to that Party out of the Revenue before the division of the Net Revenue, The Lead Party shall be entitled to receive Overhead Costs prior to the division of Net Revenue.
- (f) Each Party shall be solely responsible for calculating and distributing any Net Revenue it receives to its respective inventors in accordance with its own internal policies and procedures.
- 7.7. If a Party becomes aware of infringement or potential infringement of any Joint IP, that Party shall notify the other Party as soon as possible.
 - (a) The Lead Party shall notify any licensee as obligated by the terms of any commercial license agreement entered into by the Parties pursuant to this Agreement.
 - (b) To the extent permitted by existing commercial license agreements, the Parties shall attempt to terminate such infringement without litigation.
 - (c) If the Parties agree to jointly commence an action for infringement, the Parties shall each pay the reasonable costs, expenses and disbursements in connection with such action in accordance with the Sharing Ratio. All damages and costs received shall be divided between the Parties in accordance with the Sharing Ratio. All decisions on litigation shall be made jointly and the Lead Party shall take the lead in the litigation action. Each Party agrees to cooperate with the other in any infringement proceedings instituted hereunder and shall use its reasonable efforts to ensure that its inventors cooperate with and supply assistance reasonably requested in connection with any infringement action.
 - (d) If the Parties cannot agree to commence an action for infringement, either Party shall have the right to prosecute an infringement action, in which event such commencing Party shall bear all costs, expenses and disbursements incurred and shall be entitled to retain all damages and costs as a result of such action. Such litigation shall be controlled by the Party bringing the suit.
- 7.8. For the purposes of this Clause 7, MECET agrees that:
 - (a) NTU may assign and/or transfer to NTUitive all of NTU's legal rights to and ownership in the Joint IP, and MECET agrees that NTU shall be so entitled to assign and/or transfer such rights without further reference to MECET, or any obligation to obtain MECET's consent; and
 - (b) NTU may novate or assign all or any of its rights and/or obligations under Clauses 7.5 to 7.7 above to NTUitive and in such case and where applicable, references to NTU in Clauses 7.5 to 7.7 shall be deemed to refer to NTUitive.

 Each Party shall have the unfettered right to use the Project IP for its academic, research, development and other non-commercial purposes.

8. PUBLICATIONS

- 8.1. Each Party shall have the right to publish in any journal, thesis, or dissertation, or present at any national, international or professional meeting, the findings, methods and results derived from the Research Project, subject to the provisions of Clause 6 and Clauses 8.2 to 8.4 below.
- 8.2. The Party intending to make any publication or presentation (the "Publishing Party") shall furnish to the other Party (the "Non-Publishing Party") a copy of such proposed publication or presentation. The Non-Publishing Party shall, within one (1) month of receipt of the proposed publication or presentation, forward its written objections to the Publishing Party if it determines that its Confidential Information or patentable subject matter may be disclosed. If no written objection is made within the stipulated time, the Publishing Party shall be free to proceed with the publication or presentation.
- 8.3. Confidential Information that is governed by Clause 6 identified by the Non-Publishing Party shall be deleted from the proposed publication or presentation. Notwithstanding the aforementioned, in the event that a student needs to publish or present results of his/her work under the Research Project as part of his/her degree requirements, any deletion of Confidential Information should not affect the scientific and academic value of such student's thesis, report, publication or presentation.
- 8.4. In the event that the Non-Publishing Party objects to any such publication or presentation on the basis that the same would disclose patentable subject matter and would like an IP Application filed pursuant to Clause 7.5, the Publishing Party shall withhold such publication or presentation for a period of up to three (3) months from the date of receipt of such objection, or such additional period as may be reasonably requested, in order for the Lead Party to file the relevant IP Application(s) with respect to such patentable subject matter.

9. WARRANTIES AND DISCLAIMERS OF LIABILITY

- 9.1. All IP, findings, results, reports and materials provided by any Party under this Agreement are provided "as-is" and without any representation or warranty, express or implied, including without limitation, any implied warranty of merchantability or fitness for any particular purpose, or any warranty that any use thereof will not infringe or violate any patent or other proprietary rights of any other person.
- 9.2. Each Party shall be solely responsible and liable for (i) the acts and omissions of its respective directors, agents, contractors and employees; and (ii) its use of the Project IP, or findings, results, reports or materials from the Research Project.
- 9.3. No Party shall be liable for any loss, whether indirect, consequential, punitive or incidental, or any special loss or damage (including loss of profits, loss of use, and loss of production) however caused (and whether arising out of contract, strict liability, or tort or under any legal or equitable theory of liability) which the other Party may suffer arising from any defect, error, fault or failure to perform with respect to any Background IP or Project IP.

- 9.4. In no event shall any Party be liable to the other Party for any loss of profits, loss of goodwill, loss of use, loss of production or business interruption costs, or any type of indirect, special, consequential or incidental loss or damages suffered by the other Party arising from any breach of this Agreement whether or not the Party has been advised of the possibility of such damage.
- 9.5. Notwithstanding anything to the contrary in this Agreement, a Party's liability for any cause whatsoever related to the subject matter of this Agreement and regardless of the form of action, whether in contract or in tort, including negligence, shall be limited to Singapore Dollars Ten Thousand (S\$ 10,000).

10. TERMINATION

- 10.1. A Party (hereinafter the "Terminating Party") may terminate this Agreement-
 - in the event of the other Party (the "Defaulting Party") being in breach of any
 material term of this Agreement which is either incapable of rectification or
 which is not rectified within sixty (60) days of written notice given by the
 Terminating Party; or
 - (b) in the event of the other Party:-
 - having a receiver appointed to any of its assets; or
 - (ii) compounding with its creditors; or
 - entering into liquidation other than for the purposes of amalgamation or reconstruction.

11. CONSEQUENCES OF TERMINATION

- 11.1. Where this Agreement is terminated in accordance with Clause 4.2 or Clause 13.3, the Parties shall use their best endeavours to wind up the work carried out in relation to the Research Project in an orderly fashion and where applicable to complete such outstanding work during the relevant action periods.
- 11.2. Where this Agreement is terminated in accordance with Clause 10.1(a) the Terminating Party shall be relieved of its obligations under the Research Project and shall have no liability whatsoever to the other Party in respect of such termination.
- 11.3. The termination of this Agreement shall not affect any rights that shall have accrued to any Party prior to such termination.
- 11.4. In addition to such provisions which survive the termination of this Agreement by operation of law, the provisions of Clauses 6, 7, 8, 9, 11, 12, and 14 to 21 shall continue in force in accordance with their terms, notwithstanding the termination of this Agreement for any reason.

12. ASSIGNMENT

 Except as provided for under this Agreement, no Party may assign all or any of its rights or obligations under this Agreement without the prior written consent of the other Party.

13. FORCE MAJEURE

- 13.1. No Party shall be liable for any failure to perform its obligations under this Agreement if the failure results from events beyond the reasonable control of any of the Parties. For the purpose of this Agreement, such events shall include, but not necessarily be limited to, strikes, lock-outs or other labour disputes, civil disturbances, actions or inactions of government authorities or suppliers, epidemics, wars, embargoes, acts of God or other catastrophes ("Force Majeure Event").
- 13.2. The respective obligations of a Party hereunder shall be suspended during the time and to the extent that such Party is prevented from complying therewith by a Force Majeure Event provided that such Party shall have given written notice thereof, specifying the nature and details of such event and the probable extent of the delay, to the other Party.
- 13.3. In case of a Force Majeure Event the time for performance required by a Party under this Agreement shall be extended for any period during which the performance is prevented by the event. However, the other Party may terminate this Agreement by notice in writing if such an event which prevents performance continues for more than thirty (30) days.

14. USE OF NAMES

- 14.1. No Party shall use the name of the other Party for any purpose whether in relation to any advertisement or other form of publicity without obtaining the prior written consent of the other Party.
- Notwithstanding the generality of Clause 14.1 the Parties may notify third parties of the fact that this Agreement is in effect.

15. NOTICES

15.1. Any notice to be given by a Party to this Agreement shall be in writing and shall be deemed duly served if delivered personally or sent by facsimile transmission or by prepaid registered post to the addressee at the address or (as the case may be) the facsimile number of that Party as set out below or at such other address (or facsimile number) as the Party to be served may have notified the other Party for the purposes of this Agreement:

NTU:

For Technical Matters relating to the Research Project:

Lee Kong Chian School of Medicine Nanyang Technological University 50, Nanyang Drive, Singapore 639798

Attn: Prof Balazs Gulyas

Email: balazs.gulyas@ntu.edu.sg Facsimile: (+65) 6904 1184

For Contract Matters: Legal & Secretarial Office Nanyang Technological University Innovation Centre Block 1, Unit 208

16 Nanyang Drive, Singapore 637722

Attn: Research Contracts (NTU Ref: RCA-17/334)

Facsimile: (+65) 6791 2261 For Intellectual Property Metters:

Nanyang Technological University - NTUltive Pte Ltd

Innovation Centre Block 1, Unit 109 16 Nanyang Drive, Singapore 637722 Attn: CEO (NTU Ref: RCA-17/334)

Facsimile: (+65) 6792 1737

MECET:

For Technical Matters relating to the Research Project:

Mar Ephraem College of Engineering and Technology, Malankara Hills, Elavuvilai, Marthandam.

Kanyakumari, Tamil Nadu, India - 629171

Attn: Prof Dr. A. Lenin Fred Facsimile: (+91) 46512 73111

For Contract/Intellectual Property Matters:

Mar Ephraem College of Engineering and Technology, Malankara Hills, Elavuvilai, Marthandam.

Kanyakumari, Tamil Nadu, India - 629171

Attn: IPR

Facsimile: (+91) 46512 73111

- 15.2. Any notice given pursuant to Clause 15.1 shall be deemed to have been received:
 - in the case of delivery by hand, when delivered; or
 - (b) in the case of sending by post:
 - where posted in the country of the addressee, on the third Business Day following the day of posting; and
 - (ii) where posted in any other country, on the seventh Business Day following the day of posting; or
 - (c) in the case of facsimile, on acknowledgement by the recipient facsimile receiving equipment on a Business Day if the acknowledgement occurs before 1700 hours local time of the recipient, and in any other case on the following Business Day.

16. DISPUTE RESOLUTION

- 16.1. In the event of any difference or dispute arising between the Parties relating to the validity, interpretation, construction or performance of this Agreement, the Parties shall use their best endeavours to settle amicably such difference or dispute by consultation and negotiation.
- 16.2. If such efforts taken under Clause 16.1 above fall, then the Parties may refer the matter to mediation in accordance with the rules and procedures of the Singapore Mediation Centre.

16.3. If, and to the extent that, any dispute has not been settled pursuant to Clauses 16.1 and 16.2 above, then the dispute shall be referred to and finally resolved by arbitration in Singapore in accordance with the Arbitration Rules of the Singapore International Arbitration Centre for the time being in force, which rules are deemed to be incorporated by reference to this Clause 16. The language of the arbitration shall be English. Any award made hereunder shall be final and binding upon the Parties hereto and judgment on such award may be entered into by any court or tribunal having jurisdiction thereof.

17. GOVERNING LAW

17.1. This Agreement, including its validity and interpretation and the merits of any dispute or claim arising out of or relating to this Agreement, shall be governed by the laws of Singapore.

CONTRACTS (RIGHTS OF THIRD PARTIES) ACT (CAP.53B)

18.1. No person shall have any right pursuant to the Contracts (Right of Third Parties) Act (CAP.53B) to enforce any of the terms and conditions in this Agreement.

COMPLIANCE WITH APPLICABLE LAWS

19.1. The Parties shall comply at all times with any relevant laws, regulations, by-laws, rules and guidelines applicable to it in the carrying out of the Research Project, including any Personal Data (as defined below) or data privacy laws.

Where a Party (the "Disclosing Party") will be disclosing Personal Data to the other Party (the "Receiving Party") and prior to disclosing any Personal Data to the Receiving Party, the Disclosing Party shall obtain consent from the individual whose Personal Data is being disclosed (the "Data Subject"), to permit the Receiving Party to collect, use and/or disclose the Data Subject's Personal Data for the purposes of the Research Project and/or this Agreement. The Receiving Party will use the Personal Data solely for the purposes for which the Disclosing Party disclosed the Personal Data.

"Personal Data" shall mean any data, whether true or not, about an individual who can (a) be identified from that data; or (b) from that data and other information to which the Receiving Party has or is likely to have access.

20. ENTIRE AGREEMENT

- 20.1. Unless otherwise expressly specified, this Agreement embodies the entire understanding between the Parties in respect of the Research Project and any prior or contemporaneous representations, either oral or written, are hereby superceded.
- No amendments or changes to this Agreement shall be effective unless made in writing and signed by duly authorised representatives of the Parties.

21. GENERAL

 Nothing in this Agreement shall create or be deemed to create, a partnership, or the relationship of principal and agent, between the Parties.

- 21.2. No exercise, or failure to exercise, or delay in exercising any right power or remedy vested in any Party under or pursuant to this Agreement shall constitute a waiver by that Party of that or any other right, power or remedy.
- 21.3. In the event that any term, condition or provision of this Agreement is held to be a violation of any applicable law, statute or regulation, the same shall be deemed to be deleted from this Agreement and shall be of no force and effect, and this Agreement shall remain in full force and effect as if such term, condition or provision had not originally been contained in this Agreement. Notwithstanding the above, in the event of any such deletion, the Parties shall negotiate in good faith in order to agree on terms of a mutually acceptable and satisfactory alternative provision in place of the provision so deleted.
- 21.4. The Parties shall co-operate with each other and execute and deliver to the other such instruments and documents and take such other action as may be reasonably requested from time to time in order to carry out and confirm the rights and the intended purpose of this Agreement.
- Except as otherwise provided in this Agreement, the Parties shall bear their own costs of and incidental to the preparation, execution and implementation of this Agreement.
- 21.6. The Parties may sign this Agreement in one (1) or more counterparts by the duly authorised representatives of the Parties, each of which constitutes an original and all of which taken together shall constitute the Agreement. The Parties may sign and deliver this Agreement by facsimile or by emailed portable document format ("PDF") document (or other mutually agreeable document format), and a reproduction of this Agreement with a Party's signature made by facsimile or PDF, sent by facsimile or email shall have the same effect as and be enforceable as a signed and delivered original version of this Agreement.

[Signature Page Follows]

IN WITNESS WHEREOF the Parties have caused this Agreement to be executed on the date first above written.

SIGNED by for and on behalf of

NANYANG TECHNOLOGICAL UNIVERSITY

Name: Prof James Best

14-12-17

Designation: Dean

Lee Kong Chian School of Medicine

In the presence of:

Name: Prof Balazs Gulyas

Designation: NTU PI, LKCMedicine

SIGNED by for and on behalf of

MAR EPHRAEM COLLEGE OF ENGINEERING AND TECHNOLOGY

Name: Fr. Josephin Raj

Designation: Correspondent & Secretary Mar Ephraem College of Engineering

and Technology

In the presence of:

Name: Prof. Dr. A. Lenin Fred

Designation: MECET PI, Mar Ephraem College of Engineering and Technology

SCHEDULE 1

RESEARCH PROJECT

Human MR Image Processing System

BACKGROUND/ INTRODUCTION / OBJECTIVES

Medical image post processing is a key factor in the Magnetic resonance imaging (MRI) research as it gives clear details about the image and its findings. Magnetic resonance imaging (MRI) provides accurate and non-invasive analysis of adipose tissue distribution and is also well-known for better soft tissue contrast than other imaging modalities [1, 2]. The segmentation is the process of extraction of desired region of interest, and suitable pre-processing is required to produce the optimum result. The conventional MR images are corrupted by Rician noise and intensity inhomogeneity due to the bias field produced by the non-uniform response of RF coil [3]. The filter which is employed for noise filtering depends on the source of noise [3, 4].

The MR imaging data acquisition system samples the desired object of interest in frequency domain using forward fourier transform. The inverse fourier transform is used to decompose the datum into signal and noise components after determining the [5].

$$Y[m,n] = I[m,n] + N[m,n]$$

where I[m,n] is the desired complex signal of interest and N[m,n] is the noise component degrading the image. The magnitude of Y[m,n] is often used to form the image reconstruction [6]. The magnitude image can be given by the expression

$$X[m,n] = Y[m,n]$$

The value of X[m,n] can be written as follows.

$$X\left[m,n\right] = \left[\left[\left(I\left[m,n\right]cos\varnothing + Nr\left[m,n\right]\right)\right]^{2} + \left[\left(I\left[m,n\right]sin\varnothing + Nr\left[m,n\right]\right)\right]^{2}\right]^{\frac{1}{2}}$$

In general the MR images are corrupted by Rician noise and their quality depends on the signal to noise ratio (SNR) [7]. The Rician noise distribution is very close to Gaussian noise distribution for high SNR and very close to Rayleigh noise distribution for low SNR [8]. The presence of noise and bias field effect in MR images realizes the need for the pre-processing algorithm before segmentation. The choice of pre-processing approach is crucial and is based on the medical imaging modality.

Table 1: Comparison of existing medical image segmentation algorithms and its limitations

Existing Medical Imaging System	Segmentation Algorithms	Limitations		
Micro animal CT	Custom Image processing language(Thresholding and canny edge detection for segmentation) [9]	Thresholding fails when the edges are smooth with varying intensity and influenced by noise.		
MRI	Amira (Written in C++ language and it supports the segmentation editor which comprises thresholding, region growing, snake model for segmentation) [10]	noise and the region of interest should be place		
ARI Fuzzy c means along with manual intervention for segmentation [11]		The algorithm is sensitive to noise and missing of minute region of interest		
MRI	Yav(written in java script language and it uses deformable mesh model for segmentation) [12]	Edge preservation is poor and no preprocessing is done		
MRI	Yav++ software for segmentation, Amira for 3D visualization and Matlab for volume change measurements			

- Noise in the input images during acquisition will lead to improper segmentation result
- Edges will not be preserved during the segmentation process
- Missing of minute region of interest

The medical images acquired from the acquisition system are first subjected to suitable pre-processing technique to minimize the noise, artifacts and bias effects. The pre-processing plays a vital role and its objective is to convert the input image to a well fit for the subsequent process like segmentation, feature extraction etc. A wide number of spatial and transform domain algorithms are there for pre-processing and the choice of the algorithm depends on the image modality and the noise characteristics. The various methods for intensity in homogeneity correction techniques in MR images are surface fitting method (based on intensity or gradient), histogram based methods, soft clustering segmentation algorithms, non-parametric segmentation algorithms, high frequency maximization methods and filtering methods (homomorphic filtering).

The objectives of the proposed research work are as follows:

- Collection of Datasets from NTU
- Design and implementation of novel restoration algorithm for the preprocessing of MR medical images,

- Design and development of segmentation algorithm for the extraction of region of interest.
- Design and development of compression algorithm for the efficient transfer of medical data.
- Design of a system for the automatic interpretation of MR images
- Validation of Results.

References

- Wei Shen, et al, Adipose Tissue Quantification by Imaging Methods: A Proposed classification, NIH Public Access Author Manuscript, 2003; 11(1): 5-16.
- A. Marchadier C. Vidal, J.P.Tafani, S. Ordureau, R. Lédée, C. Léger, et al., Quantitative CT imaging for adipose tissue analysis in mouse model of obesity, SPIE Medical Imaging, 2011: 7963; doi:10.1117/12.878144.
- H Hwang, R A Haddad, et al, Adaptive Median Filter: New Algorithms and Results, IEEE Transactions on image processing, 1995: 4(4); 499-502.
- R. L. Gregg R. D. Nowak, et al, Noise Removal Methods for High Resolution MRI, TEEE NSS, 1997;
 1117-1121.
- Albert Macovski, et al, Noise in MRI, Magnetic Resonance in Medicine, 1996; 36: 494-497.
- Marijke Welvaert, Yves Rosseel, et al, On the Definition of Signal-To-Noise Ratio and Contrast-To-Noise Ratio for fMRI Data, PLoS ONE, 2013: 8 (11); e77089.
- M. Lysaker, A. Lundervold, and X. Tai, et al, Noise removal using fourth-order partial differential equation with applications to medical magnetic resonance images in space and time, IEEE Trans. Imag. Proc., 2003: 12(12); 1579-1590.
- Y. K. Luu, S. Lublinsky, E. Ozcivici, E. Capilla, J. E. Pessin, C. T. Rubin, and S. Judex," In Vivo Quantification of Subcutaneous and Visceral Adiposity by Micro Computed Tomography in a Small Animal Model", Med Eng Phys., Vol 31, issue 1, pp.34-41, Jan 2009.
- R. Fissoune, N. Pelle, L. Chaabane, F. Contard, D. Guerrier, A. Briguet, "Evaluation of adipose tissue distribution in obese fa/faZucker rats by in vivo MR imaging: effects of peroxisome proliferatoractivated receptor agonists", magnetic resonance material in physics, biology and medicine, Vol 17, pp.229-235, dec 2004.
- Monika Ronn, P. Monica Lind, Helen Karlsson, Katarina Cvek, Johan Berglund, FilipMalmberg, Jan O'rberg, Lars Lind, Francisco Ortiz-Nieto and Joel Kullberg, "Quantification of Total and Visceral Adipose Tissue in Fructose-Fed Rats Using Water-Fat Separated Single Echo MRI", Obesity biology and integrated physiology, Vol 21, pp. 338-395, sep 2013.
- G.Hamarneh, H. Delingette, M. Henkelman, "3D segmentation of mouse organs from MR images using deformable simplex mesh models", pp.779.
- Takahiro Hasumura, Yasuhito Shimada, Junya Kuroyanagi, Yubei Nishimura, Shinichi Meguro, Yoshinori Takema and Toshio Tanaka, "Green tea extract suppresses adiposity and affects the expression of lipid metabolism genes in diet-induced obese Zebrafish", Nutrition & Metabolism, Vol.9, Issue 73, 2012.
- Rachel M. Berquist, Kristen M. Gledhill, Matthew W. Peterson, et al., "The Digital Fish Library: Using MRI to Digitize, Database, and Document the Morphological Diversity of Fish", PLoS ONE, Vol. 7, Issue 4, April 2012.

SCOPE OF WORK

The proposed research work comprises of three modules: preprocessing, segmentation and compression.

Preprocessing: The non-uniform RF coil response in MR imaging produces a bias that varies nonlinearly by modulating the intensity of tissues in acquired images. The effect of the bias field is represented by $\alpha(x,y)$ and the corrupted image in equation can be written as follows

$$f_{bias(x,y)} = f_{orginal}(x,y)\alpha(x,y) + \eta(x,y)$$

From the above equation, it is clear that the pre-processing algorithm has to take into account both Rician noise and bias field effect. The improved Perona Malika filter based on tensor can be developed for the efficient filtering of MR images.

Segmentation: The segmentation is the process of extraction of desired region of interest. A wide variety of segmentation algorithms are there like thresholding, region growing, watershed and active contour models etc. The proposed research work aims towards the development of following segmentation algorithms,

- Partial differential equation based contour extraction
- An improved clustering algorithm with low computation complexity
- An improved watershed algorithm based on efficient restoration technique

Compression: For the transfer of medical images through cloud network, an efficient lossless compression algorithm will be developed for the transfer of medical data.

RESEARCH PROJECT SCHEDULE / TIME FRAME 3.

	Party Responsible	Year 1		Year 2	
"Milestone"		Q1 - Q2	Q3 - Q4	Q1-Q2	Q3 - Q4
Objective 1	NTU	Dicom data			
Objective 2	MECET	Novel Restorati on model	Validate the model with Dicom data		
Objective 3	MECET		Segmentati on model	Testing of segment ed data	Validate the compresse d data and results
Objective 4	MECET			Compres sion Model	
Objective 5	Joint				Validation of results
Progress Report	MECET	Half yearly report	Half yearly report	Half yearly report	Half yearly report
Final Report	Joint				Final Report

4. DELIVERABLES

The deliverables for this Research Project are:

NTU Deliverables:

Dicom data

MECET Deliverables:

- Novel restoration algorithm for the pre-processing of MR medical images Robust segmentation algorithm for the extraction of region of interest
- 2.
- 3. Compression algorithm for the transfer of medical data
- Automated interpretation of the MR images 5.

6. CONTRIBUTIONS TO THE RESEARCH PROJECT / BUDGET

Travel Expense and Contingency

In-kind Contribution by NTU to the Research Project (a) S\$ (Existing equipment, manpower, etc. required for the Research Project - to assign estimated monetary values) Manpower Principal Investigator Prof. Balazs Gulyas (20hours/year) Postdoctoral Fellow Dr. Parasuraman Padmanabhan (20hours/year) Dr. Sundramurthy Kumar (20hours/year) Dr. Vimalan Vijayaraghavan (20hours/year) Total: NA (b) In-kind Contribution by MECET to the Research Project SS Manpower Postdoctoral Fellow Dr A. Lenin Fred (720hours/year) Research Fellow S.N Kumar (720hours/year) Ajay Kumar H (720hours/year) Equipment Research Lab with 2 Desktop Computers Consumables Chemicals, etc.

Total (excluding manpower):

7. PAYMENT SCHEDULE

Others

Not applicable.

BACKGROUND IP

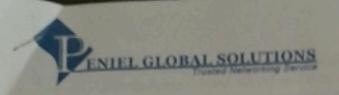
NTU Background IP

· NIL

MECET Background IP

· NIL

CONFIDENTIAL NTU Ref: RCA-17/334 3000



Upstair Sirpi Studio, Thayyalumoodu, Kulappuram PO, Kaliakkavilai, K K Dist, Tamii Nadu-629153

ANNUAL MAINTENANCE CONTRACT

This agreement made at Elavuvilai on this 11th day of July 2017, between Department of Computer Science and Engineering of Mar Ephraem College of Engineering and Technology having its registered Institute at Malankara Hills, Elavuvilai, Marthandam hereinafter called the "VENDOR" and Peniel Global Solution a company registered under the Companies Act, 1956 and having its office at Marthandam, hereinafter called "THE COMPANY" or "UIIC" sets forth the terms and conditions for the Comprehensive Annual Maintenance Contract of equipment's inclusive of repairs, replacement and preventive maintenance of equipment's along with other allied services set forth in the annexure.

1 SCOPE OF AGREEMENT:

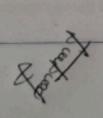
The contract shall be in force for the period from 11/07/2017 to 30/06/2018 and shall cover all those items as specified in the Annexure to this agreement. That the prices as specified in this Agreement shall not be subject to any escalation. Taxes as applicable alone would be reimbursed as shown in the invoice.

2. SCOPE OF WORK:

The vendor shall provide the following services to keep the equipment in good working condition.

- 2.1 The scope of work covers comprehensive on-site maintenance of Desktops, Servers and MFU Printers.
- 2.2 The replacement of all the spares is included under the AMC. Replacement of defective parts will be at the vendor's cost with original spares of the brand/make of the computer and peripherals as far as possible. In the event of non-availability of the spare parts, equivalent or higher configuration components should be substituted with the company's consent. Faulty parts removed from the system belong to vendor. However, the company can retain the same and use at its own sole discretion to maintain the equipment subject to the payment of its value to the vendor
- 2.3 The vendor shall maintain adequate spare machine and other spares at the site to facilitate any temporary replacement.
- 2.4 The scope of work also includes software issue like Operating system (Windows), reinstallation of OS, Antivirus, software patches, configuration of machine as if required taking Data Backup before formatting the machines, configuring printers, Scanners, Biometric devices, bringing PC to Company domain after reinstallation of PC, installation/configuration of all software's provided by Company like Antivirus, software patches, MS office, Acrobat, Java patches, email client configuration and Browser configuration for CORE Software in client machine etc.

Mob: 7708838841 04651-245038





- 2.5 The scope of work covers provision of resident service engineer in the Office, Marthandam from 10:00 to 18:00 hrs on all working days and if required, on Saturdays and Sundays /Holidays and also after 18:00 hrs on working days. A technically qualified service engineer with an experience of not less than 3 years in computer hardware as well as software maintenance will be at the disposal of office. The engineer will remain seat in Office. The engineer will provide online support for immediate solution and liaisons with field engineers.
- 2.6 The vendor should ensure that the equipment reported down (including due to OS related problems) on any working day is set right within 48 hours of reporting the complaint and in no case, later than three working days. In case, the hardware cannot be repaired within the stipulated period, the vendor should provide stand-by of the same till the hardware is returned duly repaired at no extra cost to Company.

2.7 The Vendor shall maintain the equipment's as per the manufacture's guidelines and shall

use standard and genuine components for replacements.

2.8 The timely updating of machine serial numbers will be responsibility of the vendor. The vendor would be required to maintain and submit to our Office, on quarterly basis, location wise inventory list, duly updated with details of new installation, if any and incorporating the hardware movement during the period under reference.

2.9 Complaint can be registered either telephonically or by e-mail by respective Office and

proper record of the complaints to be maintained by the Vendor.

2.10 A logbook shall be maintained in which the vendor shall record all the complaints made and parts taken out of office.

All the complaints received shall be attended by them in following manner.

- Minor faults immediately with telephonic support.
- Major faults which require visit to Institute within 48 hrs.
- c. The vendor shall be responsible for taking backup data and programme available on PCs before formatting the system and shall be also responsible for reloading the same. The backup copies are to be returned to the users, under Acknowledgement.
- d. Repair and servicing of equipment shall be carried out at customer sites, in case the equipment is required to be transported to the vendor's/manufacture's service workshop for repairs, the same shall be undertaken at the risk and cost of the vendor.
- 2.11 The AMC Vendor should have the required drivers for maintaining the PCs and peripherals and for configuring them. The rates quoted should also cover the maintenance of operating system, software installation provided by Company, installation of patches, configuration of applications (clients) etc.

2.12 The contract shall be on comprehensive basis, inclusive of repairs and replacement

of spare without any extra payments.

2.13 The Vendor shall carry out Preventive Maintenance (PM) on quarterly basis and shall plan, as per schedule of quantities, such that maintenance is carried out in each equipment at least once in three months. A separate logbook should be maintained to record the preventive maintenance carried out on each equipment.



- 2.14 The schedule of preventive maintenance shall be as follows:-
- To ensure computer hardware and peripherals are working properly in branch and no call pending in branch.
- Checking of power supply source for proper grounding and safety of equipment.
- Ensuring that the covers, screws, switches etc. are properly fastened in respect of each equipment.
- Shifting of equipment as and when required in office/branches.
- 2.15 The vendor shall make services available on all days as and when requested by the Company.

2.16 The scope of work will also include the provision of engineer for reinstallation of

computer hardware in case of shifting of branch premises or others.

2.17 It shall be the responsibility of the Vendor to make all the computers and peripherals work satisfactorily throughout the contract period and to hand over the systems in working condition to the Branch/office after expiry of the contract. In case any damage is found, the Vendor is liable to rectify in even after the contract

3. EXCLUSIONS

This AMC does not include:

- Electrical work external to the equipment or maintenance of accessories, attachments, machines or other devices not covered under this agreement.
- b) Damage resulting from accidents, fire, lightning or transportation. The cost of repairs or replacements due to these factors will include charges for labour as well as charges for parts, which is payable to the vendor apart from charges.
- c) Any work external to the equipment such as maintenance of non-AMC attachment, accessories etc.
- d) The system maintenance does not include the cost of consumables like ribbons, power cables, magnetic tapes, Inkjet Cartridges, floppy, Projector lamp, laptop battery and battery used for real time clock.
- e) In case of Printers Plastic Parts, Printer heads, Toner cartridges, Drum unit Assembly and Fuser kit Assembly shall be treated as consumable and not covered under AMC.

4. PAYMENT TERMS

- 4.1 AMC charges after deducting penalty will be paid quarterly at the end of Quarter. Taxes shall be paid as applicable. Taxes to be clearly shown in invoices raised.
- 4.2 No advance payment will be released against the service order.
- 4.3 Quarterly Preventive Maintenance Report must be submitted for release of quarterly payment.

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5. OBLIGATIONS OF THE COMPANY

- 5.1 The company shall pay Annual Maintenance Charges as mentioned in this agreement for the equipment specified in the Annexure. The maintenance charges are payable at the end of each quarter after reviewing the performance of the vendor.
- 5.2 The company will use UPS for ensuring stabilized power supply.
- 5.3 The company would ensure that rats, insects etc., do not invade the site and damage the systems especially cables etc.

6. REPLACEMENT OF PARTS

The vendor shall replace any parts of the hardware on failure with hardware parts having similar or equivalent functional capabilities.

Parts required for the maintenance of the equipment and / or correction of faults will be supplied at no extra cost to the company. Faulty parts removed from the system belong to vendor. However, the company can retain the same and use at its own sole discretion to maintain the equipment subject to the payment of its value to the vendor.

7. RELOCATION OF SYSTEMS

During the maintenance agreement in force, the company may relocate the system and keep the vendor informed. In case of relocation of equipment, transport and other incidental charges will be borne by company.

8. CONTRACT VALIDITY AND TERMINATION OF AGREEMENT.

This contract will be valid for the period from 11/07/2017 to 30/06/2018 with a provision to extend the same for a further period of one year or part thereof on the same rates, terms and conditions on mutual consent.

Either party may terminate the agreement prior to expiry of contract period by giving three months written notice.

Without prejudice to any other provision contained within these Terms and Conditions or of any Agreement the Company may terminate the Agreement by 90 days' notice in writing.

9. CONFIDENTIALITY

The vendor acknowledges that all materials and information which has or will come into its possession or knowledge in connection with this agreement or the performance hereof, consists of confidential and proprietary data, whose disclosure to or use by third parties will be damaging or cause loss to company. The vendor agrees to hold such material and information in strictest confidence, not to make use thereof other than for the performance of this agreement, to release it only to employees requiring such information and not to disclose it to any other parties. The vendor shall take appropriate action with respect to its employees to ensure that the obligations of non-use and non-disclosure of confidential Aformation under this agreement are fully satisfied.

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10. TRAVEL EXPENSES.

No travel expenses shall be borne by the Company in respect of travel undertaken by the vendor towards fulfillment of obligations under the Contract.

In Witness whereof the parties have executed this contract on the above mentioned date

Authorised Signatory of THE COMPANY with official stamp

(Signature) Paul Roy S. Technician (Signature) (Name & Designation)

Authorised Signatory of the VENDOR with Official stamp

(Signature) Ashor Ashor, Assistance (Name & Designation)

Witness:

(Name & Designation)



MEMORANDUM OF UNDERSTANDING

BETWEEN

NALAM HEALTHCARE IT SOLUTIONS PVT LTD.,

#19, II floor, Singaravelan 1st Street,
Pallavan Nagar, Maduravoyal, Chennai-600 095.
(THE "COMPANY")

AND

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Mar Ephraem College of Engineering & Technology Malankara Hills, Elavuvilai, Marthandam, Tamil Nadu 629171 (THE "CLIENT")

-IN RESPECT OF-

PLACEMENT AND INTERNSHIP MEMORANDUM OF UNDERSTANDING

THIS Memorandum of Understanding (hereinafter called the "MOU") is entered into the 26thday ofJuly, Two Thousand and Seventeenbetween:

A. Nalam Healthcare It Solutions Pvt Ltd., #19, II floor, Singaravelan 1st Street, Pallavan Nagar, Maduravoyal, Chennai-600 095 (hereinafter referred to as the "COMPANY")

AND

B. Mar Ephraem College of Engineering & Technology, Malankara Hills, Elavuvilai, Marthandam, Tamil Nadu - 629171(hereinafter referred to as "CLIENT").

The Company and the Client listed above are hereafter individually referred to as a "Party" and collectively as the "Parties".



WHEREAS:

- (A) The Company's core business is to provide internship and placements related to IT solutions for health care units and products.
- (B) The Client is an educational institution catering Anna University syllabi to students and wishes to engage the Company to have internship and placements for the Computer Science and Engineering Department.
- (C) Pending execution of a formal Service Agreement, the parties have agreed to execute this binding Memorandum of Understanding (the "Agreement") in order to regulate their relationship.

THEREFORE, in consideration of mutual promises, representations, covenants and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged.

The provision of the Services is conditional upon;

The Client shall employ all due diligence to complete its due diligence over the Company within Sixteen (16) days from the date hereof or such longer period as the Parties may agree

1. Scope of Services

 1.1Providing Internship and placements for CSE students, at Mar Ephraem College of Engineering & Technology.

2. Confidentiality

- 2.1 Each of the parties shall keep confidential and shall not disclose to any other person, nor use for any purpose except the purposes of conclusion of the sale and purchase of the Sale Shares, any confidential information obtained from the other party as a result of negotiating, entering into or implementing this Agreement.
- 2.2 No public announcement or press release in connection with the subject matter of this Agreement shall be made or issued by or on behalf of any party without the prior written approval of the others.

3. Co-operation

3.1 Each of the Parties shall do and execute or procure to be done and executed all such acts, deeds, documents and things as may be within its power to give full effect to this Agreement and to procure that all provisions of this Agreement are observed and performed.



- 3.2 Each of the Parties agrees that this Agreement is entered in between them and will be performed by each of them in a spirit of mutual co-operation, trust and confidence and that it will use all means reasonably available to it to give effect to the objectives of this Agreement.
- 3.3 The Parties recognize that this Agreement cannot reasonably take into consideration all matters or circumstances that may arise during the implementation of the obligations set out in this Agreement.
- 3.4 In this regard, should a situation not addressed by this Agreement arise, then the Parties shall cooperate to resolve it bearing in mind the Parties intentions and the completion timelines for its implementation.

4. Duration and Termination

4.1 This Agreement shall become effective from the date 26.07.2017.

This Agreement shall terminate towards after five years from the date of sign or if the parties agree in writing to terminate this Agreement.

4.2 Termination shall be without prejudice to any claims for payment of fees invoiced or for fees to be invoiced for work carried out prior to termination, or any other professional inputs.

5. No agency or partnership

Nothing in this Agreement shall create or be deemed to create a partnership or agency between the Parties and neither Party shall enter or have authority to enter into any agreement or make any representation or warranty on behalf of or pledge the credit of or otherwise bind the other Party.

6. Exclusion of Liability

6.1 The Company shall not be liable to the Client or be deemed to be in breach of its warranties or obligations under any provision in this Agreement:

For any delay in performing or failure to perform the services to the extent that such delay or failure was due to a failure by the Client to perform its obligations under this Agreement or if the delay results from a failure by the Client to comply with requests by the Company for instructions, information or action required by it to perform its obligations under this Agreement;

6.1.1 For the consequences of any acts or omissions of the Client, its employees or agents;

OR

6.1.2 If the Client is in default of any of its payment obligations under this Agreement.



6.2 The Company, its directors, employees and agents will not be liable to the Client or to any third party for any consequential or punitive loss or damages.

7. Change of Scope and Variation

- 7.1 Should it become necessary as the Agreement proceeds to change the scope of the services to include matters the Client thinks appropriate and/or exclude certain matters pursuit of which becomes impracticable or likely to involve time and expense out of proportion to their value to the Client, the Client shall discuss and agree such changes with the Company; such agreement will include the payment of reasonable additional fees and a reasonable period to provide any additional services. Significant variations in the scope of the services will be the subject of a supplementary agreement or engagement letter.
- 7.2 Subject to the foregoing this Agreement shall not be varied or cancelled, unless such variation or cancellation shall be expressly agreed in writing by each party.

8. Arbitration

- 8.1 Should any dispute arise between the Parties hereto with regard to the interpretation, rights, obligations and/or implementation of any one or more of the provisions of this Agreement, the Parties to such dispute shall in the first instance attempt to resolve such dispute by amicable negotiation.
- 8.2 Should such negotiations fail to achieve a resolution within Thirty (30) days, either Party may declare a dispute by written notification to the other, whereupon such dispute shall be referred to arbitration under the following terms:-
 - 8.2.1 Such arbitration shall be resolved under provisions of the applicable Indian laws and jurisdiction.
 - 8.2.2 Notwithstanding the above provisions of this clause, a Party is entitled to seek preliminary injunctive relief or interim or conservatory measures from any court of competent jurisdiction pending the final decision or award of the arbitrator.

9. Costs

Each party shall bear its own costs incurred in the negotiation, preparation and execution of this Agreement



IN WITNESS WHEREOF this Agreement has been duly executed by the Parties hereto as of the day and year first above written.

Nalam HealthCare IT Solutions
Signature: White (Manager):
CANAL STATES
SEALED with the Common Scal of Mar Ephraem College of Engineering & Technology
Signature: Ashwin (Head of the Denastrisepartment)
Mer Ephraem College of Engineering and Technology Materians Hills, Eleverited, Marthanders - 829 171, KJC Dist.



MEMORANDUM OF UNDERSTANDING

BETWEEN

eMexo TECHNOLOGIES

#219, First Floor, Nagalaya, 3rd Cross Road, Neeladri Nagar, Electronics City
Phase 1, Electronic City, Bengaluru, Karnataka 560100
(THE "COMPANY")

AND

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Mar Ephraem College of Engineering & Technology
Malankara Hills, Elavuvilai, Marthandam, Tamil Nadu 629171
(THE "CLIENT")

-IN RESPECT OF-

TRAINING AND INTERNSHIP

MEMORANDUM OF UNDERSTANDING

THIS Memorandum of Understanding (hereinafter called the "MOU") is entered into the 26th day of July, Two Thousand and Seventeen between:

A. eMexo TECHNOLOGIES, #219, First Floor, Nagalaya, 3rd Cross Road, Neeladri Nagar, Electronics City Phase 1, Electronic City, Bengaluru, Karnataka 560100 (hereinafter referred to as the "COMPANY")

AND

B. Mar Ephraem College of Engineering & Technology, Malankara Hills, Elavuvilai, Marthandam, Tamil Nadu - 629171(herein after referred to as "CLIENT").

The Company and the Client listed above are hereafter individually referred to as a "Party" and collectively as the "Parties".



WHEREAS:

- (A) The Company's core business is to provide internship and placements related to TT solutions for health care units and products.
- (B) The Client is an educational institution catering Anna University syllabi to students and wishes to engage the Company to have internship and placements for the Computer Science and Engineering Department.
- (C) Pending execution of a formal Service Agreement, the parties have agreed to execute this binding Memorandum of Understanding (the "Agreement") in order to regulate their relationship.

THEREFORE, in consideration of mutual promises, representations, covenants and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged.

The provision of the Services is conditional upon;

1.1 The Client shall employ all due diligence to complete its due diligence over the Company within Sixteen (16) days from the date hereof or such longer period as the Parties may agree in writing.

2. Scope of Services

2.1 Providing Training and Internship for CSE students, at Mar Ephraem College of Engineering & Technology.

3. Confidentiality

- 3.1 Each of the parties shall keep confidential and shall not disclose to any other person, nor use for any purpose except the purposes of conclusion of the sale and purchase of the Sale Shares, any confidential information obtained from the other party as a result of negotiating, entering into or implementing this Agreement.
- 3.2 No public announcement or press release in connection with the subject matter of this Agreement shall be made or issued by or on behalf of any party without the prior written approval of the others.

4. Co-operation

- 4.1 Each of the Parties shall do and execute or procure to be done and executed all such acts, deeds, documents and things as may be within its power to give full effect to this Agreement and to procure that all provisions of this Agreement are observed and performed.
- 4.2 Each of the Parties agrees that this Agreement is entered in between them and will be performed by each of them in a spirit of mutual co-operation, trust and confidence and



that it will use all means reasonably available to it to give effect to the objectives of this Agreement.

- 4.3 The Parties recognize that this Agreement cannot reasonably take into consideration all matters or circumstances that may arise during the implementation of the obligations set out in this Agreement.
- 4.4 In this regard, should a situation not addressed by this Agreement arise, then the Parties shall cooperate to resolve it bearing in mind the Parties intentions and the completion timelines for its implementation.

5. Duration and Termination

- 5.1 This Agreement shall become effective from the date 26.07.2017. This Agreement shall terminate towards after four years from the date of sign or if the parties agree in writing to terminate this Agreement.
- 5.2 Termination shall be without prejudice to any claims for payment of fees invoiced or for fees to be invoiced for work carried out prior to termination, or any other professional inputs.

6. No agency or partnership

Nothing in this Agreement shall create or be deemed to create a partnership or agency between the Parties and neither Party shall enter or have authority to enter into any agreement or make any representation or warranty on behalf of or pledge the credit of or otherwise bind the other Party.

7. Exclusion of Liability

- 7.1 The Company shall not be liable to the Client or be deemed to be in breach of its warranties or obligations under any provision in this Agreement:
 - 7.1.1 for any delay in performing or failure to perform the services to the extent that such delay or failure was due to a failure by the Client to perform its obligations under this Agreement or if the delay results from a failure by the Client to comply with requests by the Company for instructions, information or action required by it to perform its obligations under this Agreement;
 - 7.1.2 for the consequences of any acts or omissions of the Client, its employees or agents;

OR

- 7.1.3 If the Client is in default of any of its payment obligations under this Agreement.
- 7.2 The Company, its directors, employees and agents will not be liable to the Client or to any third party for any consequential or punitive loss or damages.

8. Change of Scope and Variation

8.1 Should it become necessary as the Agreement proceeds to change the scope of the services to include matters the Client thinks appropriate and/or exclude certain matters



pursuit of which becomes impracticable or likely to involve time and expense out of proportion to their value to the Client, the Client shall discuss and agree such changes with the Company; such agreement will include the payment of reasonable additional fees and a reasonable period to provide any additional services. Significant variations in the scope of the services will be the subject of a supplementary agreement or engagement letter.

8.2 Subject to the foregoing this Agreement shall not be varied or cancelled, unless such variation or cancellation shall be expressly agreed in writing by each party.

9. Arbitration

- 9.1 Should any dispute arise between the Parties hereto with regard to the interpretation, rights, obligations and/or implementation of any one or more of the provisions of this Agreement, the Parties to such dispute shall in the first instance attempt to resolve such dispute by amicable negotiation.
- 9.2 Should such negotiations fail to achieve a resolution within Thirty (30) days, either Party may declare a dispute by written notification to the other, whereupon such dispute shall be referred to arbitration under the following terms:-
 - Such arbitration shall be resolved under provisions of the applicable Indian laws and jurisdiction.
 - Notwithstanding the above provisions of this clause, a Party is entitled to seek preliminary injunctive relief or interim or conservatory measures from any court of competent jurisdiction pending the final decision or award of the arbitrator.

10. Costs

Each party shall bear its own costs incurred in the negotiation, preparation and execution of this Agreement

IN WITNESS WHEREOF this Agreement has been duly executed by the Parties hereto as of the day and year first above written.

SEALED with the Common Seal of eMexo Technologies	
Signature: REGU] (Manager):	
SEALED with the Common Seal of) Mar Ephraem College of Engineering & Technology)	
Signature: Ashuin	
(Head of the Department) HEAD OF CSE DEPARTMENT HEAD OF CSE DEPARTMENT War Epirases College of Engineering and Technology War Epirases College of Engineering and Technology Walentana Hills, Bernvillet, Marthandess - 626 171, K.K. Diel.	



Kavi Sodtware Solution John Plaza, 2nd Floor, Near S.L.T.C depot, main Road, Marthandam, Kanyakumari Dist- 629 165. Phone: 04651-272944 Email: to.marthandam@caddcentre.com

(DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING) MEMORANDUM OF UNDERSTANDING

This memorandum of understanding (MoU) is being established between CADD Centre Training Service, Main Road, Marthandam — 629165 (here in after referred as CADC Centre) and DEPARTMENT of Computer Science and Engineering, Mar EPHRAEM College of Engineering and Technology, Elavuvilai, Marthandam — 629171 (here in after referred as MAR EPHRAEM CSE) to provide Value Added Courses, Workshops, Short Term Training Programs, Faculty Development Program, Entrepreneurial Development Program.

Under this MoU, CADD Centre and MAR EPHRAEM CSE agrees to co-operate in strengthening the knowledge of MAR EPHRAEM CSE students in the area Engineering Software, Hardware and faculty facilities available at MAR EPHRAEM CSE and CADD Centre.

THE TERMS OF THE MOU ARE AS FOLLOWS:

01. The main objective of CADD Centre and MAR EPHRAEM CSE will be to impart quality Training/Education services to the students of MAR EPHRAEM CSE.



Kavi Sodtware Solution John Plaza, 2nd Floor, Near S.E.T.C depot, main Road, Marthandom, Kanyakumari Dist- 629 165.

Plione: 04651-272944

Email

tr.marthandam@caddcentre.com

- 02. CADD Centre shall make provision for modification, improvements or changes suggested by MAR EPHRAEM CSE and course fee will be fixed on agreeable terms between both parties.
- 03. All the decision should be made with the consent of the Head of the Department CSE, Mar Ephraem Engineering College and Centre Head, CADD Centre, Marthandam.
- 04. For all interactions of this MoU, CSE HOD from MAR EPHRAEM will be the contact person and the Centre Head Marthandam from CADD Centre will be the contact person for further execution.
- 05. In charge of the course will be responsible for the collection and payment of the course fees by the students to participate in the course.
- 06. Course fees, terms and conditions can be revised only with a mutual agreement between both the parties.
- 07. CADD Centre agrees to provide assistance in organizing workshops, STTP, FDP and EDP.
- 08. This MoU will be valid for 5 years from the date of signature by both the parties.
- 09. CADD Centre will provide the course material / certificate / Faculty



Kavi Sodtware Solution
John Plaza, 2nd Floor,
Near S.E.T.C depot,
main Road,
Marthandam,
Kanyakumari Dist- 629 165.
Phone: 04651-272944
Email:
In.marthandam@caddcentre.com

members for each course which is intended to develop the knowledge of the students through the above said joint effort.

- 10. In addition to CADD Centre faculty members, MAR EPHRAEM CSE will provide a supporting staff, Computer Centre and Class rooms if required to run the course.
- For the conduct of the whole course the Centre Head, CADD Centre Marthandam will be in the charge.
- 12. It is also mutually agreed upon by both the parties that the courses once offered will be completed in all respects. Both the parties are responsible for the smooth conduct of the planned courses without causing any damage to the properties and any hardship to the students.
- 13. Course plan and the course material for the course must be approved by both parties well in advance and to be given to students in the first day of their course.
 - The principal and HOD MAR EPHRAEM CSE will be responsible for payment of the course fees by the students to participate in the course.
 - Installments of the shares released by Mar EPHRAEM should be in the form of cash or cheque.

Place: Marthandam

Date: 28.07.2017



HOD/CSE

MAR EPHRAEM HEAD OF CSE DEPARTMENT

Mar Ephrasian College of Engineering and Technology Maiaviture Hills, Elevavillet, Merthandem - 629 171, K.K. Dist.

CENTRE MANAGER
CADD CENTRE, MARTHANDAM

Kavi Sodtware Solution
John Plaza, 2nd Floor,
Near S.E.F.C depot,
main Road,
Marthandam,
Kanyakumari Dist-629 165.
Phone: 04651-272944
Email:
tn.marthandam@caddcentre.com

PRINCIPAL

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MAR EPHRAEM COLLEGE
OF ENGINEERING & TECHNOLOGY
MALANKARA HILLS, EL AVIVILAI, MARTHADI
KANYAKUMARI DISTRICT. TABILIN ARIO.

CENTRE HEAD

CADD CENTRE, MARTHANDAM

FEB 16 2017

GISTRATION INDIAR 0000 100 P8693

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NON-DISCLOSURE AGREEMENT

This Non-Disclosure Agreement ("Agreement") is made on this 10th day of February 2017.

Between

Eureka Forbes Limited (CIN#U27109WB1931PLC007010), a company governed under the Companies Act, 1956 and having its corporate office at B1/B2, 701, Marathon Innova, Off Ganpatrao Kadam Marg, Lower Parel, Mumbai 400 013, India (hereinafter referred to as "EUREKA FORBES" which expression shall mean and include unless repugnant to the context or meaning, successors and permitted assigns);

And

Mar Ephraem College of Engineering and Technology, (College Code – 4928 & Registration No. 182/4), an educational institute incorporated under registration of Trust Act, 1882 and located at Malankara Hills, Elavuvilai, Marthandam, Dist - Kanyakumari - 629171 represented through Very Rev. Fr. Prem Kumar, MSW Correspondent (hereinafter referred to as "MAR EPHRAEM", which expression shall mean and include unless repugnant to the context, its Principal, Secretary, Directors, associates, successors, administrators, executors, attorney, representatives and permitted assigns);

WHEREAS:

MAR EPHRAEM is engaged to provide a quality education that keeps abreast of emerging technologies and progress;

EUREKA FORBES is in the business of Sales, Marketing & Services of Water Purifier, Vacuum Cleaners, Air Purifier, Security Solutions and other business;

MAR EPHRAEM and EUREKA FORBES are in the process of working out and negotiating a possible business relationship pertaining to Research and Development;

EUREKA FORBES and MAR EPHRAEM had expressed an interest in acquiring information pertaining to possible business relationship to explore it further;

During the course of the above negotiations and during the business relationship, MAR EPHRAEM and EUREKA FORBES may disclose to each other certain information which may be proprietary and/or of confidential nature as more particularly described below.

ELAVUVILAI: 629 121

MARTHANDAM
KANYAKUMARI DIST

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NOW THEREFORE in consideration of the mutual protection of Information herein by the parties hereto and such additional promises and understandings as are hereinafter set forth, the parties agree as follows:

- 1. For purposes of this Agreement, "Confidential Information" means, with respect to either party, any and all information in written, representational, electronic, verbal or other form relating directly or indirectly to the present or potential business, operation or financial condition of or relating to the disclosing party (including, but not limited to, information identified as being proprietary and/or confidential or pertaining to, plans, schematics, photographs, technical know how, explanation, pricing, marketing plans or strategy, volumes, services rendered, customers and suppliers lists, financial or technical or service matters or data, employee / agent / consultant / officer / director - related personal or sensitive data and any information which might reasonably be presumed to be proprietary or confidential in nature) excluding any such information which (i) is known to the public (through no act or omission of the receiving party in violation of this Agreement); (ii) is lawfully acquired by the receiving party from an independent source having no obligation to maintain the confidentiality of such information; (iii) was known to the receiving party prior to its disclosure under this Agreement; (iv) was or is independently developed by the receiving party without breach of this Agreement; or (v) is required to be disclosed by governmental or judicial order, in which case the party so required shall give the other party prompt written notice, where possible, and use reasonable efforts to ensure that such disclosure is accorded confidential treatment and also to enable such other party to seek a protective order or other appropriate remedy at such other party's sole costs.
- 2. This Agreement does not obligate either party to disclose any particular proprietary information; to purchase, sell, license, assign, transfer, or otherwise dispose of any technology, services, or products; or to enter into any other form of business, contract or arrangement. Furthermore, nothing contained hereunder shall be construed as creating, conveying, transferring, granting or conferring by one party on the other party any rights, license or authority in or to the information provided. The parties shall use the Confidential Information only for the limited purpose of the parties discussing the possibility of intended business opportunity and for the purposes of a future business relationship or agreement that may be entered into in this regard and for no other purpose whatsoever.
- Each party agrees and undertakes that it shall not, without first obtaining the
 written consent of the other, disclose or make available to any person, reproduce
 or transmit in any manner, or use (directly or indirectly) for its own benefit or the

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ELAVUVILAI - 629 171 MARTHANDAM

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benefit of others, any Confidential Information save and except both parties may disclose any Confidential Information to their Affiliates, directors, officers, employees, partner or advisors of their own or of Affiliates on a "need to know" basis to enable them to evaluate such Confidential Information in connection with the negotiation of the possible business relationship; provided that such persons have been informed of, and agree to be bound by obligations which are at least as strict as the recipient's obligations hereunder. For the purpose of this Agreement, Affiliates shall mean, with respect to any party, any other person directly or indirectly Controlling, Controlled by, or under direct or indirect common Control with, such party. "Control", "Controlled" or "Controlling" shall mean, with respect to any person, any circumstance in which such person is controlled by another person by virtue of the latter person controlling the composition of the Board of Directors or owning the largest or controlling percentage of the voting securities of such person or by way of contractual relationship or otherwise.

- 4. The receiving party shall use the same degree of care and protection to protect the Confidential Information received by it from the disclosing party as it uses to protect its own Confidential Information of a like nature, and in no event such degree of care and protection shall be of less than a reasonable degree of care.
- Each party warrants that it has the right to make the disclosures under this Agreement.
- 6. Confidential information is provided "as is" with all faults. To the maximum extent allowed by law, no disclosing party will be liable for the accuracy or completeness of the confidential information it discloses pursuant to this agreement. No confidential information disclosed by the parties constitutes any representation, warranty, assurance, guarantee or inducement by either party to the other with respect to the infringement of trademarks, patents, copyrights, any right of privacy, or any rights of third persons.
- 7. The parties agree to indemnify and keep indemnified each other against all loss and damage, which the disclosing party may suffer as a result of any breach of this Agreement by the receiving party; provided always that the disclosing party shall forthwith give written notice to the receiving party of the above loss and damage and satisfactory documentary evidence of such actual loss and damage.
- 8. The parties agree that upon termination/expiry of this Agreement or at any time during its currency, at the request of the disclosing party, the receiving party shall promptly deliver to the disclosing party the Confidential Information and copies thereof in its possession or under its direct or indirect control, and shall destroy all memoranda, notes and other writings prepared by the receiving party or its



to Bom Omh

KUDW BANGALORE 560 068 Affiliates or directors, officers, employees, partners or advisors based on the Confidential Information and promptly certify such destruction.

Neither party shall reverse engineer, disassemble or decompile any prototypes, software or other tangible objects in computer code or electronic format which embody the other party's confidential information and which are provided to the party hereunder.

- 9. Both parties acknowledge that the Confidential Information coming to the knowledge of the other may relate to and/or have implications regarding the future strategies, plans, business activities, methods, processes and or information of the parties, which afford them certain competitive and strategic advantage. Accordingly neither party shall use the Confidential Information in a manner that will jeopardise or adversely affect in any manner such future strategies, plans, business activities, methods, processes, information, and/or competitive and strategic advantage of the disclosing party.
 - 10. The parties hereto acknowledge and agree that in the event of a breach or threatened breach by the other of the provisions of this Agreement, the party not in breach will have no adequate remedy in monies or damages and accordingly the party not in breach shall be entitled to specific relief and /or injunctive relief against such breach or threatened breach by the party in breach apart from other remedy at law or at equity.
 - 11. Failure or delay by either party in exercising or enforcing any right, remedy or power hereunder shall neither operate as a waiver thereof, nor shall any single or partial exercise or enforcement of any right, remedy or power preclude any further exercise or enforcement thereof or the exercise of enforcement of any other right, remedy or power.
 - 12. If any dispute arises between the parties hereto during the subsistence or thereafter, in connection with or arising out of this Agreement, the dispute shall be referred to Arbitration under Arbitration and Conciliation Act, 1996 by a sole Arbitrator. Arbitration shall be held in Mumbai. The proceedings of Arbitration shall be in the English language. The Arbitrator's award shall be final and binding on the parties and the agreement shall be subject to the exclusive Jurisdiction of the Court at Mumbai.
 - This Agreement will be governed exclusively by Indian Laws.
 - 14. This Agreement shall not be amended, assigned or transferred by either party without the written consent of the other party.

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- This Agreement shall remain valid for a period of Two (2) years from the date of 15. execution of this Agreement which term may be extended by mutual consent in writing by both the parties. This Agreement may be terminated by either party by giving Sixty (60) days notice in writing to the other party without assigning any reason whatsoever. The obligations of each party hereunder will continue and be binding irrespective of whether the discussion between the parties materialise into a specific understanding/business relationship or not and for a further period of Three (3) years after termination / expiry of the Agreement.
- 16. Each party will bear its own costs in connection with the activities undertaken in connection with this Agreement.
- 17. Nothing in this Agreement is intended to confer any rights/remedies under or by reason of this Agreement on any third party.
- 18. This Agreement supersedes all prior discussions and writings with respect to the Confidential Information and constitutes the entire Agreement between the parties with respect to the subject matter hereof. If any term or provision of this Agreement is determined to be illegal, unenforceable, or invalid in whole or in part for any reason, such illegal, unenforceable, or invalid provisions or part(s) thereof shall be stricken from this Agreement and such provision shall not affect the legality, enforceability, or validity of the remainder of this Agreement.

IN WITNESS WHEREOF the parties hereto have duly executed this Agreement as of the date and year written above.

Mar Ephraem College of Engineering and EUREKA FORBES LIMITED

Technology

Name: Very Rev.Fr. Prem Kumar

Designation: Correspondent

Witness Name:

Prof. Dr. A. Lenin Fred

Principal

Name: Dr. SK Sankar

Designation: GM

Witness Name:

Dr. M. Sathish Kumar

DGM



KUDLU

560 068



MEMORANDUM OF UNDERSTANDING

DATED

5/11/2018

BETWEEN

Concept Solutions.

TC No. 38 /1537(2), Near Baba Studio, Mahathma Gandhi Rd , Overbridge , Mele ,
Pazhavangadi , Thiruvananthapuram , Kerala 695023,

(THE "COMPANY")

AND

Mar Ephraem College of Engineering & Technology Malankara Hills, Elavuvilai, Marthandam, Tamil Nadu 629171 (THE "CLIENT")

-IN RESPECT OF-



Concept 5

INHOUSE VALUE ADDED COURSE MEMORANDUM OF UNDERSTANDING

THIS Memorandum of Understanding (hereinafter called the "MOU") is entered into the 5th day of November, Two Thousand and Eighteen between:

A. Concept Solutions is a Software Development and Training company incorporated in the Republic of India of (Te. No. 38 / 1537 (2), Near Baba Studio, Mahathma Gandhi Rd, Overbridge, Mele Pazhavangadi, Thiruvananthapuram, Kerala 695023) (hereinafter referred to as the "COMPANY")

AND

 Mar Ephraem College of Engineering & Technology, Malankara Hills, Elavuvilai, Marthandam, Tamil Nadu - 629171(herein after referred to as "CLIENT").

The Company and the Client listed above are hereafter individually referred to as a "Party" and collectively as the "Parties"

WHEREAS:

- (A) The Company's core business is to educate and mentor Under Graduates. Post Graduates, Other Graduates. Professionals and Corporate by offering skill development programs through courses like J2EE. NET, Android etc.
- (B) The Client is an educational institution catering Anna University syllabi to students and wishes to engage the Company to develop a Value Added Course for the Final Year Computer Science and Engineering Department of Academic Year 2018 - 19.
- (C) Following negotiations, the Company has agreed to offer the Services (a term defined below) to the Client for the consideration set out in Annexure 1 below.
- (D) Pending execution of a formal Service Agreement, the parties have agreed to execute this binding Memorandum of Understanding (the "Agreement") in order to regulate their relationship.

THEREFORE, in consideration of mutual promises, representations, covenants and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, the Parties agree to the following terms and conditions and to be bound thereby:



1. Conditional Precedent

- Concept Solutions
- 1.1. The provision of the Services is conditional upon:
 - (a) For the Company
 - The Company undertaking to provide the Client with documents relating to the Company for it to undertake its due diligence; and
 - (ii) Providing the client with an extensive list of the courses to be covered under the Curriculum.
 - (b) For the Client
 - (i) The Client undertaking to the Company that it shall exclusively engage the Company for the development of the Value Added Course and curriculum:
 - (ii) The Client undertaking to the Company that it will allocate a specific area as the technology centre for implementation of the Services fully equipped with tables chairs computers, projectors, teaching materials like markers erasers and safety equipment as required by Govt of Tamil Nadu and Govt of India laws and other educational boards;
 - (iii) The Client undertaking to the Company that it shall bear the loss of any items and materials in the technology centre through the negligence of its students and shall indemnify the Company against any loss damages claims or actions arising from damage to its equipment in the Value Added Course lab caused by the negligent acts of the Client, its employees, agents and its students:
 - (iv) The Client undertaking to provide the Company with support as called upon by the Company for implementation of the Services;
 - (v) The Client executing this Agreement and paying the Service Cost to the Company.
 - (vi) Further, the CLIENT should ensure the availability of required infrastructure and lab support for the COMPANY, suitable enough to conduct the mentioned training. It is to be noted that, during the period of the agreement, if any circumstances arise which call for alterations and modifications of this agreement, such modifications/ alterations can only be done based on mutual agreement.
- 1.2. The Client shall employ all due diligence to complete its due diligence over the Company within Sixteen (16) days from the date hereof or such longer period as the Parties may agree in writing.
- 2. Scope of Services
- Providing short term Value Added Training to the signed up Final Year, CSE students of Academic Year 2018-19 to 2020-2021 of CLIENT, at Mar Ephraem College of Engineering & Technology.
- 2.2. The courses are mentioned as in the Annexure 1.



ANNEXURE 1

Value Added Course program as agreed by First and Second Party:

St. No.	Department	Course Content		
1.	Final Vear Computer Science and Engineering	• J2EE • .NET • Android		

- 2.3. Subject to Clause 2.1& 2.2, the Parties have negotiated and agreed that the Company in implementation of the Services will in development of the Value Added Lab and implementation of the curriculum provide:
 - (a) An expert engineer of COMPANY will train students, for three days every week till the program is completed;
 - (b) The classes will start from 6th December 2018;
 - (c) Issue certificate towards the completion of course, assessment and fees



Confidentiality

Concept Solution

- Each of the parties shall keep confidential and shall not disclose to any other person, nor use for any purpose except the purposes of conclusion of the sale and purchase of the Sale Shares. any confidential information obtained from the other party as a result of negotiating, entering into or implementing this Agreement.
- 3.2. No public announcement or press release in connection with the subject matter of this Agreement shall be made or issued by or on behalf of any party without the prior written approval of the others.

4. Co-operation

- 4.1. Each of the Parties shall do and execute or procure to be done and executed all such acts. deeds, documents and things as may be within its power to give full effect to this Agreement and to procure that all provisions of this Agreement are observed and performed.
- 4.2. Each of the Parties agrees that this Agreement is entered in between them and will be performed by each of them in a spirit of mutual co-operation, trust and confidence and that it will use all means reasonably available to it to give effect to the objectives of this Agreement.
- The Parties recognize that this Agreement cannot reasonably take into consideration all 4.3. matters or circumstances that may arise during the implementation of the obligations set out in this Agreement.
- In this regard, should a situation not addressed by this Agreement arise, then the Parties shall 44 cooperate to resolve it bearing in mind the Parties intentions and the completion timelines for its implementation.

Duration and Termination

- This Agreement shall become effective from the date 06.12.2018. 101
- This Agreement shall terminate towards the end of Academic Year 2020 21 or if the parties agree in writing to terminate this Agreement.
- Termination shall be without prejudice to any claims for payment of fees invoiced or for fees to be invoiced for work carried out prior to termination, or any other professional inputs. 1.3

No agency or partnership

Nothing in this Agreement shall create or be deemed to create a partnership or agency between the Parties and neither Party shall enter or have authority to enter into any agreement or make any representation or warranty on behalf of or pledge the credit of or otherwise bind the other Party.

Exclusion of Liability

The Company shall not be liable to the Client or be deemed to be in breach of its warranties or obligations under any provision in this Agreement:



Concept Solutions

- (a) for any delay in performing or failure to perform the services to the extent that such delay or failure was due to a failure by the Client to perform its obligations under this Agreement or if the delay results from a failure by the Client to comply with requests by the Company for instructions, information or action required by it to perform its obligations under this Agreement;
- (b) for the consequences of any acts or omissions of the Client, its employees or agents;

OR

- (c) If the Client is in default of any of its payment obligations under this Agreement.
- 3.2 The Company, its directors, employees and agents will not be liable to the Client or to any third party for any consequential or punitive loss or damages.
- 4 Change of Scope and Variation
- 4.1 Should it become necessary as the Agreement proceeds to change the scope of the services to include matters the Client thinks appropriate and/or exclude certain matters pursuit of which becomes impracticable or likely to involve time and expense out of proportion to their value to the Client, the Client shall discuss and agree such changes with the Company, such agreement will include the payment of reasonable additional fees and a reasonable period to provide any additional services. Significant variations in the scope of the services will be the subject of a supplementary agreement or engagement letter.
- 4.2 Subject to the foregoing this Agreement shall not be varied or cancelled, unless such variation or cancellation shall be expressly agreed in writing by each party.
- 5 Arbitration
- 5.1 Should any dispute arise between the Parties hereto with regard to the interpretation, rights, obligations and/or implementation of any one or more of the provisions of this Agreement, the Parties to such dispute shall in the first instance attempt to resolve such dispute by amicuble negotiation.
- 5.2 Should such negotiations fail to achieve a resolution within Thirty (30) days, either Party may declare a dispute by written notification to the other, whereupon such dispute shall be referred to arbitration under the following terms:-
 - (a) Such arbitration shall be resolved under provisions of the applicable Indian laws and jurisdiction.
 - (b) The place and seat of arbitration shall be Mar Ephraem College of Engineering & Technology and the language of arbitration shall be English&Tamil;
 - (c) Notwithstanding the above provisions of this clause, a Party is entitled to seek preliminary injunctive relief or interim or conservatory measures from any court of competent jurisdiction pending the final decision or award of the arbitrator.



5. Costs

Concept

Each party shall bear its own costs incurred in the negotiation, preparation and execution of

IN WITNESS WHEREOF this Agreement has been duly executed by the Parties hereto as of the day and year first above written.

Concept Solutions Seal of
T. J.
(Co (up)
(Authorised Signature)
SEALED with the Common Seal of
Mar Ephraem College of Engineering & Technology
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ignature:
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(Statement of attestation by a Lawyer or Notary)



Mar Ephraem

College of Engineering and Technology

(Run by Catholic Diocese of Marthandam)

Approved by AICTE | Affiliated to Anna University | Accredited by NAAC | DST FIST Supported Institution

Accredited by NBA for Mechanical, CSE & Civil (2022-2025)(Tier II)

Department

of

Electrical and Electronics Engineering



MarEphraem

CollegeofEngineering&Technology

RunbyCatholicDioceseOfMarthandam| ApprovedbyAlCTE|
AffiliatedToAnnaUniversity,Chennai | AccreditedbyNAAC |
MalankaraHills,Elavuvilai,Marthandam-629171,KanyakumariDistrict,TamilNadu.

Web:www.marephraem.edu.in,Ph:04651-271111,273111,Fax:04651-270158,e-mail:marephraem@gmail.com

Department of Electrical and Electronics Engineering

2017-2018

Sl.No	Name of the Organisation	Activity	Duration
1	Eureka Forbes	Internship	10-02-2017 to 10-02-2019
2	EmCogSolutions	Skill Development Training	20-07-2017
3	SMEC Automation PVT LTD	Value Added Course	07-02-2018
4	CADPOINT	Value Added Course	15-03-2018
5	Vintech Systems Pvt Limited	Internship	18-04-2018
6	JTR FibresPvt LTD	Field trip	24-09-2018
7	Power Lab Instruments, Chennai	Field Trip	20-10-2018

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ELAVUVILAI

MARTHANDAM - 829 171

KANYAKUMARI DISTRICT

TAMILNADU, INDIA

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TAMILNADU, INDIA

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Prof. Dr. A. Lenin Fred, M.E., Dh.D.

PRINCIPAL
PRINCIPAL
OF ENGINEERING & TECHNOLOGY
MALANKARA HILLS, ELAVUVILAI, MARTHANDAM - 629 171
KANYAKUMARI DISTRICT, TAMILNADU, INDIA.
KANYAKUMARI DISTRICT, TAMILNADU, INDIA.

MAR EPHRAEM COLLEGE OF ENGINEERING & TECHNOLOGY
MALANKARA HILLS, ELAVUVILAI – 629171, INDIA

Telephone: +91(0) 4651 271111 Email: marephraem@gmail.com GOVI OF KARMATAKA

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NON-DISCLOSURE AGREEMENT

This Non-Disclosure Agreement ("Agreement") is made on this 10th day of February 2017.

Between

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Eureka Forbes Limited (CIN#U27109WB1931PLC007010), a company governed under the Companies Act, 1956 and having its corporate office at B1/B2, 701, Marathon Innova, Off Ganpatrao Kadam Marg, Lower Parel, Mumbai 400 013, India (hereinafter referred to as "EUREKA FORBES" which expression shall mean and include unless repugnant to the context or meaning, successors and permitted assigns);

And

Mar Ephraem College of Engineering and Technology, (College Code – 4928 & Registration No. 182/4), an educational institute incorporated under registration of Trust Act, 1882 and located at Malankara Hills, Elavuvilai, Marthandam, Dist - Kanyakumari - 629171 represented through Very Rev. Fr. Prem Kumar, MSW Correspondent (hereinafter referred to as "MAR EPHRAEM", which expression shall mean and include unless repugnant to the context, its Principal, Secretary, Directors, associates, successors, administrators, executors, attorney, representatives and permitted assigns);

WHEREAS:

MAR EPHRAEM is engaged to provide a quality education that keeps abreast of emerging technologies and progress;

EUREKA FORBES is in the business of Sales, Marketing & Services of Water Purifier, Vacuum Cleaners, Air Purifier, Security Solutions and other business;

MAR EPHRAEM and EUREKA FORBES are in the process of working out and negotiating a possible business relationship pertaining to Research and Development;

EUREKA FORBES and MAR EPHRAEM had expressed an interest in acquiring information pertaining to possible business relationship to explore it further;

During the course of the above negotiations and during the business relationship, MAR EPHRAEM and EUREKA FORBES may disclose to each other certain information which may be proprietary and/or of confidential nature as more particularly described below.

COLLEGE OF ENGINEERING & ELAVUVILAI. 629 171

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NOW THEREFORE in consideration of the mutual protection of Information herein by the parties hereto and such additional promises and understandings as are hereinafter set forth, the parties agree as follows:

- For purposes of this Agreement, "Confidential Information" means, with 1. respect to either party, any and all information in written, representational, electronic, verbal or other form relating directly or indirectly to the present or potential business, operation or financial condition of or relating to the disclosing party (including, but not limited to, information identified as being proprietary and/or confidential or pertaining to, plans, schematics, photographs, technical know how, explanation, pricing, marketing plans or strategy, volumes, services rendered, customers and suppliers lists, financial or technical or service matters or data, employee / agent / consultant / officer / director - related personal or sensitive data and any information which might reasonably be presumed to be proprietary or confidential in nature) excluding any such information which (i) is known to the public (through no act or omission of the receiving party in violation of this Agreement); (ii) is lawfully acquired by the receiving party from an independent source having no obligation to maintain the confidentiality of such information; (iii) was known to the receiving party prior to its disclosure under this Agreement; (iv) was or is independently developed by the receiving party without breach of this Agreement; or (v) is required to be disclosed by governmental or judicial order, in which case the party so required shall give the other party prompt written notice, where possible, and use reasonable efforts to ensure that such disclosure is accorded confidential treatment and also to enable such other party to seek a protective order or other appropriate remedy at such other party's sole costs.
- 2. This Agreement does not obligate either party to disclose any particular proprietary information; to purchase, sell, license, assign, transfer, or otherwise dispose of any technology, services, or products; or to enter into any other form of business, contract or arrangement. Furthermore, nothing contained hereunder shall be construed as creating, conveying, transferring, granting or conferring by one party on the other party any rights, license or authority in or to the information provided. The parties shall use the Confidential Information only for the limited purpose of the parties discussing the possibility of intended business opportunity and for the purposes of a future business relationship or agreement that may be entered into in this regard and for no other purpose whatsoever.

3. Each party agrees and undertakes that it shall not, without first obtaining the written consent of the other, disclose or make available to any person, reproduce or transmit in any manner, or use (directly or indirectly) for its own benefit or the



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benefit of others, any Confidential Information save and except both parties may disclose any Confidential Information to their Affiliates, directors, officers, employees, partner or advisors of their own or of Affiliates on a "need to know" basis to enable them to evaluate such Confidential Information in connection with the negotiation of the possible business relationship; provided that such persons have been informed of, and agree to be bound by obligations which are at least as strict as the recipient's obligations hereunder. For the purpose of this Agreement, Affiliates shall mean, with respect to any party, any other person directly or indirectly Controlling, Controlled by, or under direct or indirect common Control with, such party. "Control", "Controlled" or "Controlling" shall mean, with respect to any person, any circumstance in which such person is controlled by another person by virtue of the latter person controlling the composition of the Board of Directors or owning the largest or controlling percentage of the voting securities of such person or by way of contractual relationship or otherwise.

- 4. The receiving party shall use the same degree of care and protection to protect the Confidential Information received by it from the disclosing party as it uses to protect its own Confidential Information of a like nature, and in no event such degree of care and protection shall be of less than a reasonable degree of care.
- 5. Each party warrants that it has the right to make the disclosures under this Agreement.
- 6. Confidential information is provided "as is" with all faults. To the maximum extent allowed by law, no disclosing party will be liable for the accuracy or completeness of the confidential information it discloses pursuant to this agreement. No confidential information disclosed by the parties constitutes any representation, warranty, assurance, guarantee or inducement by either party to the other with respect to the infringement of trademarks, patents, copyrights, any right of privacy, or any rights of third persons.
- 7. The parties agree to indemnify and keep indemnified each other against all loss and damage, which the disclosing party may suffer as a result of any breach of this Agreement by the receiving party; provided always that the disclosing party shall forthwith give written notice to the receiving party of the above loss and damage and satisfactory documentary evidence of such actual loss and damage.
- 8. The parties agree that upon termination/expiry of this Agreement or at any time during its currency, at the request of the disclosing party, the receiving party shall promptly deliver to the disclosing party the Confidential Information and copies thereof in its possession or under its direct or indirect control, and shall destroy all memoranda, notes and other writings prepared by the receiving party or its



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KUDLU BANGALORE 560 068 Affiliates or directors, officers, employees, partners or advisors based on the Confidential Information and promptly certify such destruction.

Neither party shall reverse engineer, disassemble or decompile any prototypes, software or other tangible objects in computer code or electronic format which embody the other party's confidential information and which are provided to the party hereunder.

- Both parties acknowledge that the Confidential Information coming to the knowledge of the other may relate to and/or have implications regarding the future strategies, plans, business activities, methods, processes and or information of the parties, which afford them certain competitive and strategic advantage. Accordingly neither party shall use the Confidential Information in a manner that will jeopardise or adversely affect in any manner such future strategies, plans, business activities, methods, processes, information, and/or competitive and strategic advantage of the disclosing party.
- The parties hereto acknowledge and agree that in the event of a breach or threatened breach by the other of the provisions of this Agreement, the party not in breach will have no adequate remedy in monies or damages and accordingly the party not in breach shall be entitled to specific relief and /or injunctive relief against such breach or threatened breach by the party in breach apart from other remedy at law or at equity.
- 11. Failure or delay by either party in exercising or enforcing any right, remedy or power hereunder shall neither operate as a waiver thereof, nor shall any single or partial exercise or enforcement of any right, remedy or power preclude any further exercise or enforcement thereof or the exercise of enforcement of any other right, remedy or power.
- 12. If any dispute arises between the parties hereto during the subsistence or thereafter, in connection with or arising out of this Agreement, the dispute shall be referred to Arbitration under Arbitration and Conciliation Act, 1996 by a sole Arbitrator. Arbitration shall be held in Mumbai. The proceedings of Arbitration shall be in the English language. The Arbitrator's award shall be final and binding on the parties and the agreement shall be subject to the exclusive Jurisdiction of the Court at Mumbai.
- 13. This Agreement will be governed exclusively by Indian Laws.

14. This Agreement shall not be amended, assigned or transferred by either party without the written consent of the other party.

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- This Agreement shall remain valid for a period of Two (2) years from the date of 15. execution of this Agreement which term may be extended by mutual consent in writing by both the parties. This Agreement may be terminated by either party by giving Sixty (60) days notice in writing to the other party without assigning any reason whatsoever. The obligations of each party hereunder will continue and be binding irrespective of whether the discussion between the parties materialise into a specific understanding/business relationship or not and for a further period of Three (3) years after termination / expiry of the Agreement.
- Each party will bear its own costs in connection with the activities undertaken in 16. connection with this Agreement.
- Nothing in this Agreement is intended to confer any rights/remedies under or by 17. reason of this Agreement on any third party.
- This Agreement supersedes all prior discussions and writings with respect to the 18. Confidential Information and constitutes the entire Agreement between the parties with respect to the subject matter hereof. If any term or provision of this Agreement is determined to be illegal, unenforceable, or invalid in whole or in part for any reason, such illegal, unenforceable, or invalid provisions or part(s) thereof shall be stricken from this Agreement and such provision shall not affect the legality, enforceability, or validity of the remainder of this Agreement.

IN WITNESS WHEREOF the parties hereto have duly executed this Agreement as of the date and year written above.

Mar Ephraem College of Engineering and EUREKA FORBES LIMITED

Technology

Name: Very Rev.Fr. Prem Kumar

Designation: Correspondent

Witness Name:

Prof. Dr. A. Lenin Fred

Principal

Name: Dr. SK Sankar

Designation: GM

Witness Name:

Dr. M. Sathish Kumar

DGM



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MEMORANDUM OF UNDERSTANDING

DATED

20/07/2017

BETWEEN

EmCog Solutions,
An MSME Registered Knowledge Transfer Centre, Chennai-37
(THE "COMPANY")
AND

Mar Ephraem College of Engineering & Technology Malankara Hills, Elavuvilai, Marthandam, Tamil Nadu 629171 (THE "CLIENT")

-IN RESPECT OF-

Joint Interdisciplinary Research and Developmental Projects, Commercial Product Development Training, Curriculum Design, Sponsored Internships, Industrial Training and Visit, Free Faculty Development Program for School of Electrical & Electronics Engineering

This **MEMORANDUM OF UNDERSTANDING** (hereinafter called the "**MOU**") is entered into the 20 day of July, Two Thousand and Seventeen between

A. A EmCog Solutions Private Limited is a Private limited company incorporated in the Republic of India at An MSME Registered Knowledge Transfer Centre, Chennai -37 (here in after referred to as the "COMPANY")

AND

B. Mar Ephraem College of Engineering & Technology, Malankara Hills, Elavuvilai, Marthandam, Tamil Nadu -629171(here in after referred to as the "CLIENT")

The Company and the Client listed above are hereafter individually referred to as a "Party" and collectively as the "Parties"

WHEREAS:

a. EmCog Solutions is a product development MSME registered Ed-tech Company developing new learning products and process for new generation learners as its primary business. The Company also provides Joint Interdisciplinary Research and Developmental projects, Hands on Commercial product development Training and Skill development program, Curriculum Design, Sponsored Internships, Industrial Training and Visit, Free Faculty Development program, Solar EPC Services to its beneficiaries providing on-grid and off-grid solar system design, engineering, installation and maintenance. We are expertise in the field of Renewable Energy, Analog Electronics, Power Electronics and Embedded systems

b. The Client is an educational institution catering Anna University syllabi to students and wishes to engage the Company in develop and deliver a Value Added Course for the students of school of Electrical and Electronics from the Academic Year 2017-18 to 21

SCOPE OF SERVICES

- Providing Joint Interdisciplinary Research and Developmental projects, Hands on Commercial product development Training and Skill development program, Curriculum Design, Sponsored Internships, Industrial Training and Visit, Free Faculty Development program to the signed up EEE students and faculties of Academic Year 2019-20 of CLIENT, at Mar Ephraem College of Engineering & Technology
- The Parties have negotiated and agreed that the Company in implementation of the Services will in development of the Hands on Commercial product development Training and implementation of the curriculum provide:
 - An expert engineer of COMPANY will train students till the program is completed,
 - ii. The training will start from the Academic Year 2017-18 and ends on 2020-21,
 - iii. After the completion of course and assessment, certificate will be issued

THE TERMS OF THE MOU ARE AS FOLLOWS:

THEREFORE, in consideration of mutual promises, representations, covenants and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, the Parties agree to the following terms and conditions and to be bound thereby

AMENDMENTS

No amendments or modifications of this MoU shall be valid unless the same is made in writing by both the parties or their authorized representatives and specifically stating the same to be an amendment of this MoU. The modifications shall be effective from the date on which they are made or executed, unless otherwise agreed to

DURATION OF THE MOU

The duration of this MoU shall be for 1 year from the date of signing of this MoU and shall be renewed on mutual agreement by both parties thereon. It may be modified by mutual written consent of both the parties

IN WITNESS WHERE OF this Agreement has been duly executed by the Parties here to as of the day and year first above written.

Place

: Elavuvilai

Date

: 20.07.2017

OS/EEE ISH JOHN PAUL MARIERU BATTE Department

Dept of Electrical & Electronics Engineering Mar Ephraem College of Engineering & Technology Elavuvilai, Marthandam, K.K. Dist. - 629 171

DIRECTOR

EMCOGSOLUTIONS PRIVATE LIMITED

PRINCIPAL

MAR EPHRAEM

Prof. Dr. A. Lenin Fred, M.E., Ph.D. PRINCIPAL

MAR EPHRAEM COLLEGE OF ENGINEERING & TECHNOLOGY FOR Emcog Solutions MALANKARA HILLS, ELAVUVILAI, MARTHANDAM - 629 171 KANYAKUMARI BISTRICT, TAMILNADU, INDIA.

Managing Director





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MEMORANDUM OF UNDERSTANDING

DATED

7/02/2018

BETWEEN

SMEC AUTOMATION PVT LTD, 2nd floor, Kaloor Complex, Kochi, Kerala 682017-India (THE "COMPANY")

AND

Mar Ephraem College of Engineering & Technology Malankara Hills, Elavuvilai, Marthandam, Tamil Nadu 629171 (THE "CLIENT")

-IN RESPECT OF-

INHOUSE VALUE ADDED COURSE

MEMORANDUM OF UNDERSTANDING

THIS Memorandum of Understanding (hereinafter called the "MOU") is entered into the 23rdday of February, Two Thousand and Nineteen between:

A. SMEC Automation Private Limited is a Private limited company incorporated in the Republic of India under Incorporation NumberU45309KL2001PTC014516 of (2nd Floor, Kaloor Bus Stand Building, Kaloor, Ernakulam -682017) (hereinafter referred to as the "COMPANY")

AND

B. Mar Ephraem College of Engineering & Technology, Malankara Hills, Elavuvilai, Marthandam, Tamil Nadu - 629171(hereinafter referred to as "CLIENT").

The Company and the Client listed above are hereafter individually referred to as a "Party" and collectively as the "Parties".

WHEREAS:

- (A) The Company's core business is to educate and mentor Under Graduates, Post Graduates, Other Graduates, Professionals and Corporate by offering skill development programs through courses like Automation, Embedded System, Oil & Gas Piping, MEP HVAC, IOT etc. The company also operates in several other domains through its sister concerns. The company is ISO, TUV Rheinland certified along with affiliations with City & Guilds, UK, ESSCI(Electronics Skill Sector Council of India)and CGSC(Capital goods skill council).
- (B) The Client is an educational institution catering Anna University syllabi to students and wishes to engage the Company to develop a Value Added Course for the Final Year Electrical and Electronics Department of Academic Year 2018 - 19.
- (C) Following negotiations, the Company has agreed to offer the Services (a term defined below) to the Client for the consideration set out in Annexure 1 below.
- (D) Pending execution of a formal Service Agreement, the parties have agreed to execute this binding Memorandum of Understanding (the "Agreement") in order to regulate their relationship.

THEREFORE, in consideration of mutual promises, representations, covenants and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, the Parties agree to the following terms and conditions and to be bound thereby:

1. Conditional Precedent

1.1. The provision of the Services is conditional upon;

- (a) For the Company
 - (i) The Company undertaking to provide the Client with documents relating to the Company for it to undertake its due diligence; and
 - Providing the client with an extensive list of the courses to be covered under the Curriculum.

(b) For the Client

- The Client undertaking to the Company that it shall exclusively engage the Company for the development of the Value Added Course and curriculum;
- (ii) The Client undertaking to the Company that it will allocate a specific area as the technology centre for implementation of the Services fully equipped with tables chairs computers, projectors, teaching materials like markers erasers and safety equipment as required by Govt of Tamil Nadu and Govt of India laws and other educational boards;
- (iii) The Client undertaking to the Company that it shall bear the loss of any items and materials in the technology centre through the negligence of its students and shall indemnify the Company against any loss damages claims or actions arising from damage to its equipment in the Value Added Course lab caused by the negligent acts of the Client, its employees, agents and its students;
- (iv) The Client undertaking to provide the Company with support as called upon by the Company for implementation of the Services;
- (v) The Client executing this Agreement and paying the Service Cost to the Company.
- (vi) Further, the CLIENT should ensure the availability of required infrastructure and lab support for the COMPANY, suitable enough to conduct the mentioned training. It is to be noted that, during the period of the agreement, if any circumstances arise which call for alterations and modifications of this agreement, such modifications/ alterations can only be done based on mutual agreement.
- 1.2. The Client shall employ all due diligence to complete its due diligence over the Company within Sixteen (16) days from the date hereof or such longer period as the Parties may agree in writing.

2. Scope of Services

- 2.1. Providing short term Value Added Training to the signed up Final Year, EEE students of Academic Year 2018-19 of CLIENT, at Mar Ephraem College of Engineering & Technology.
- The courses are mentioned as in the Annexure 1.

ANNEXURE 1

Value Added Course program as agreed by First and Second Party, with fees structure:

No.	Department	Course Content	No. of Participants	Total No. of certificates to be issued per student	Fees Per Head (INR)
1.	Final Year Electrical & Electronics	 Industrial Automation Revit MEP Electrical CAD & Auto CAD 	27	3	5,000/-

NB: The respective tariff will be applicable for any numbers of students who freshly sign up for the courses.

Placements 23.

Minimum 5 candidates will be placed in SMEC. with the salary package of Remaining 70% of candidates will be placed within 3 months of completion of Rs. 10,000 to training.

The eligibility criteria for placements would be as given below:

Rs. 15,000 i. ii.

iii.

a. Candidate should have 85% attendance.
b. Candidate should score minimum. 80% in assessment exams which would be conducted towards the completion of training.

- Subject to Clause 2.1& 2.2, the Parties have negotiated and agreed that the Company in 2.4. implementation of the Services will in development of the Value Added Lab and implementation of the curriculum provide:
 - An expert engineer of COMPANY will train students, for one day every week till the (a) program is completed;
 - (b) The classes will start from 7th February 2018:
 - (c) Issue certificate towards the completion of course, assessment and fees

3. The Payment on the Consideration

- The Parties have negotiated and agreed that the Value Added Course fees for the Client with a 3.1. Total Sum of 1, 35,000/- INR including 18% GST. The particulars of Total Sum are given in Annexure 1.
- The consideration shall be paid as follows: 3.2.

Installment No.	Amount in INR	Date
1	35,000/-	
2	70,000/-	07/02/2019
		07/03/2019
3	30,000/-	16/03/2019

- The sums set out in Clause 3.2 shall be paid to the Company on given dates, except for the final 3.3. installment which could be paid towards the completion of clause 2.3.i.
- The sums set out in Clause 3.2 shall be paid to the Company through its nominated bank account 3.4. whose particulars are: -

Account Name

: SMEC Automation Pvt. Ltd

Bank

: ICICI Bank

Branch

: MG ROAD BRANCH

Account Number

: 001005011581

Branch Code

Bank Code /IFSC

:000010 : ICIC0000010

Swift Code

: ICICINBB010

The Company shall be at liberty to change its nominated bank account at any time by issuing 3.5. notice in writing to the Client.

Confidentiality

- Each of the parties shall keep confidential and shall not disclose to any other person, nor use 4.1. for any purpose except the purposes of conclusion of the sale and purchase of the Sale Shares, any confidential information obtained from the other party as a result of negotiating, entering into or implementing this Agreement.
- No public announcement or press release in connection with the subject matter of this 4.2. Agreement shall be made or issued by or on behalf of any party without the prior written approval of the others.

5. Co-operation

- 5.1. Each of the Parties shall do and execute or procure to be done and executed all such acts, deeds, documents and things as may be within its power to give full effect to this Agreement and to procure that all provisions of this Agreement are observed and performed.
- 5.2. Each of the Parties agrees that this Agreement is entered in between them and will be performed by each of them in a spirit of mutual co-operation, trust and confidence and that it will use all means reasonably available to it to give effect to the objectives of this Agreement.
- 53. The Parties recognize that this Agreement cannot reasonably take into consideration all matters or circumstances that may arise during the implementation of the obligations set out in this Agreement.
- In this regard, should a situation not addressed by this Agreement arise, then the Parties shall 5.4. cooperate to resolve it bearing in mind the Parties intentions and the completion timelines for its implementation.

1 **Duration and Termination**

- 1.1 This Agreement shall become effective from the date 23.02.2019.
- This Agreement shall terminate towards the end of Academic Year 2018 19 or if the parties 1.2 agree in writing to terminate this Agreement.
- Termination shall be without prejudice to any claims for payment of fees invoiced or for fees 13 to be invoiced for work carried out prior to termination, or any other professional inputs.

2 No agency or partnership

Nothing in this Agreement shall create or be deemed to create a partnership or agency between the Parties and neither Party shall enter or have authority to enter into any agreement or make any representation or warranty on behalf of or pledge the credit of or otherwise bind the other Party.

Exclusion of Liability

3

- The Company shall not be liable to the Client or be deemed to be in breach of its warranties or obligations under any provision in this Agreement:
 - (a) for any delay in performing or failure to perform the services to the extent that such delay or failure was due to a failure by the Client to perform its obligations under this Agreement or if the delay results from a failure by the Client to comply with requests by the Company for instructions, information or action required by it to perform its obligations under this Agreement;
 - (b) for the consequences of any acts or omissions of the Client, its employees or agents;

OR

- (c) If the Client is in default of any of its payment obligations under this Agreement.
- 3.2 The Company, its directors, employees and agents will not be liable to the Client or to any third party for any consequential or punitive loss or damages.

4 Change of Scope and Variation

- 4.1 Should it become necessary as the Agreement proceeds to change the scope of the services to include matters the Client thinks appropriate and/or exclude certain matters pursuit of which becomes impracticable or likely to involve time and expense out of proportion to their value to the Client, the Client shall discuss and agree such changes with the Company; such agreement will include the payment of reasonable additional fees and a reasonable period to provide any additional services. Significant variations in the scope of the services will be the subject of a supplementary agreement or engagement letter.
- 4.2 Subject to the foregoing this Agreement shall not be varied or cancelled, unless such variation or cancellation shall be expressly agreed in writing by each party.

5 Arbitration

- 5.1 Should any dispute arise between the Parties hereto with regard to the interpretation, rights, obligations and/or implementation of any one or more of the provisions of this Agreement, the Parties to such dispute shall in the first instance attempt to resolve such dispute by amicable negotiation.
- 5.2 Should such negotiations fail to achieve a resolution within Thirty (30) days, either Party may declare a dispute by written notification to the other, whereupon such dispute shall be referred to arbitration under the following terms:-
 - (a) Such arbitration shall be resolved under provisions of the applicable Indian laws and jurisdiction.
 - (b) The place and seat of arbitration shall be Mar Ephraem College of Engineering & Technology and the language of arbitration shall be English&Tamil;
 - (c) Notwithstanding the above provisions of this clause, a Party is entitled to seek preliminary injunctive relief or interim or conservatory measures from any court of competent jurisdiction pending the final decision or award of the arbitrator.

Costs

Each party shall bear its own costs incurred in the negotiation, preparation and execution of this Agreement

. General

- 7.1. In this Agreement, including the recitals and the schedule, unless the context otherwise requires words importing the singular number only shall include the plural number also and vice versa and words importing the masculine gender includes the feminine and neuter gender and vice versa.
- No failure or delay to exercise any power, right or remedy by the parties shall operate as a waiver of that right, power or remedy and no single or partial exercise by that party of any right, power or remedy shall preclude its further exercise or the exercise of any other right, power or remedy.
- 7.3. The rights and remedies of the parties provided in this Agreement are cumulative and not exclusive of any rights or remedies provided by law.
- 7.4. Each of the provisions of this Agreement is severable and distinct from the others and, if at any time one or more of these provisions is or becomes invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired.
- 7.5. No amendment or variation to this Agreement shall be effectual or binding on the parties hereto unless it is in writing and duly executed by or on behalf of the parties hereto.
- 7.6. The construction, validity and performance of this Agreement shall be governed by and construed in accordance with the laws Govt. of Tamil Nadu and Govt. of India.

IN WITNESS WHEREOF this Agreement has been duly executed by the Parties hereto as of the day and year first above written.

SEALED with the Common Seal of
SMEC Automation Private Limited

Signature:
(General Manager):

SEALED with the Common Seal of
Mar Ephraem College of Engineering & Technology

Signature:
(Principal):

Head of the School
School of Electrical & Flectronics Engg.
Mar Ephraem College of Engg. & Tech.
Malankara Hills, Elavovilai, Marthandam-629171

(Statement of attestation by a Lawyer or Notary)



Memorandum of Understanding

This Memorandum of Understanding, dated the 15 th day of March, Two Thousand and Eighteen, is entered between Mar Ephraem College of Engineering & Technology, Marthandam, Tamil Nadu, India represented by Chairman / HOD / Correspondent, and M/s. CADPOINT, 2nd Floor, Moosa Complex, Main Road, Neyyattinkara, Kerala represented by Mr. Paul Varghese Pynadath, Centre Head.

MAR EPHRAEM COLLEGE - CADPOINT COLLOBORATION OBJECTIVE:

Maximise placement opportunities for students of Electrical and Electronics engineering branch by equipping them with industry specific skills and make them industry ready

This Memorandum of Understanding is to conduct CAD Training on Autocad, Autocad Electrical and MEP Softwares for the students of electrical and Electronics engineering branch, Towards achieving the objectives of maximizing the employment opportunities also to provide Value Added Courses, Workshops, Short Term Training programs, Entrepreneurial development Program on various areas for Mar Ephraem college students, this memorandum of understanding is being entered for a minimum period of one year, which can then be further extended mutually.

The Memorandum of Understanding states the terms and conditions under which the CAD Training Programme shall be conducted by CADPOINT at the Mar Ephraem College, and lists herein the respective responsibilities of both parties

SCOPE OF COLLOBORATION:

Both parties to this MOU agree that the broad scope of responsibility will be as stated below

Business Address:
MEC Engineering Solutions
T/A CADPOINT
2nd Floor, Moosa Complex,
Above IOB, Main Road,
Neyyattinkara, Kerala 695121

E: cadpointneyyattinkara@gmail.com
Web: www.cadpointneyyattinkara.in



CAD Point, The party of the first part shall provide:

- Training in CAD/MEP software for engineering students.
- . Specially designed course material for all the students at par with international standards.
- The courses once offered will be completed in all respects.
- Responsible for the smooth conduct of the planned courses without causing any damage to the properties and any hardship to the students.
- Make the students employable by teaching them with latest tools and techniques and keep them abreast with the latest happening in the industry.
- Assistance in installing required software in the college machines
- The requisite instructors to provide the training for the different software.
- · Assessment of student on module completion.
- Each student who successfully completes the training programme will be given a certificate.

The College, The party of the second part shall provide:

- The required number of computer systems with CAD software and other required infrastructure.
- Class rooms with LCD projector and a Computer with AutoCAD software for the conduct of the theory classes.
- . To Schedule the classes during the weekdays.
- To ensure all students attend the training programs scheduled for them.
- Disciplinary support for the smooth conduct and timely completion of the entire course.

Participants:

The participants would be the fourth year students of Electrical and Electronics Engineering Department.

Business Address:
MEC Engineering Solutions
T/A CADPOINT
2nd Floor, Moosa Complex,
Above IOB, Main Road,
Neyyattinkara, Kerala - 695121

E: cadpointneyyattinkara@gmail.com Web: www.cadpointneyyattinkara.in



COURSE CONTENTS

CADPOINT in consultation with Mar Ephraem college shall make provision for modification. improvements or changes suggested by MAR EPHRAEM, School of Electrical and Electronics in CADD Class. These are listed at Annexure 2.

Time Schedule:

The program will be conducted in the college. Depending on the total strength, the students will be divided into batches with a minimum of 20 and a maximum of 60 per batch. The program will be conducted according to the time table drawn up with the mutual consent of both parties.

Certification:

The students after the successful completion will be provided with

Diploma in Electrical Cad Autodesk certification (For Autodesk Products)

COURSE FEES & PAYMENT PATTERN

The course fees per student for each one the courses offered are detailed at Annexure 1.

Course fees, terms and conditions can be revised only with a mutual agreement between both the parties.

The Course coordinator from Mar Ephraem College will be responsible for the payment for the total number of students enrolled in the training programme as detailed below:

- 1ST installment payment of the course fees ie admission fee (20% of the total cost) will be paid to CADPOINT, Neyyattinkara before commencement of
- Balance payment needed to be paid before April 5th 2018. 2nd installment ie 40 % of the total course fee needed to be paid before 25th

Business Address:

MEC Engineering Solutions T/A CADPOINT 2nd Floor, Moosa Complex, Above IOB, Main Road, Neyyattinkara, Kerala - 695121 E: cadpointneyyattinkara@gmail.com Web: www.cadpointneyyattinkara.in



Examination:

Examinations will be conducted after completion of each software and students will be evaluated on the set parameters. Mark list will be provided for each student.

VALIDITY

This Memorandum of Understanding shall come into effect from March 15, 2018

ON BEHALF OF

Mar Ephraem College of Engineering & Technology

Marthandam.

The HOS/EEE Mar Ephraem

The Principal Mar Ephraem

Mar Ephraem College of Engineering & Technology

Marthandam.

TamilNadu.

ON BEHALF OF

CADPOINT,

Neyyattinkara.

Mr.Paul Varghese Pynadath

Centre Head CADPOINT,



2nd floor, Moosa Complex

Main Road, Neyyattinkara

Kerala

Business Address:
MEC Engineering Solutions
T/A CADPOINT
2nd Floor, Moosa Complex,
Above IOB, Main Road,
Neyyattinkara, Kerala - 695121

E: cadpointneyyattinkara@gmail.com
Web: www.cadpointneyyattinkara.in



ANNEXURE 1

SI	Course	Duration	Course Material/ Certification	Course Fees
0	AutoCad	60	Course Material/ Certification	2500
	AutoCad Eectrical	40	Course Material/ Certification	2500
	Revit Mep	60	Course Material/ Certification	5000
10.60		Section 1		10000

ANNEXURE 2

Syllabus

AUTO CAD

- > Introduction to Auto Cad
- > Ortho graphic and isometric projections
- Basic operations
- > Drawing and drafting tools
- > Editing and modification tools
- Drafting settings
- > Object properties and utilities tools
- Detailing with annotations
- Layer management
- Parametric drawing
- Working with blocks and attributes
- > External reference
- > Plot and publish
- Layout management
- Import and export

Business Address:
MEC Engineering Solutions
T/A CADPOINT
2nd Floor, Moosa Complex,
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Neyyattinkara, Kerala - 695121

E: <u>cadpointneyyattinkara@gmail.com</u> **Web**: www.cadpointneyyattinkara.in



AUTO CAD ELECTRICAL

- > Introduction to Auto Cad
- Project management
- Schematic components
- Symbol Builder
- Component tools
- Wire/Wire number tools
- > Ladder tools
- > Ladder tools
- > PLC layout
- > Report generation

REVIT MEP

- > Introduction
 - MEP DESIGN
 - Revit MEP
- Work sharing
 - Solid modeling
 - Equipment
 - Light fixture
 - Devices
- HVAC Design
 - Heating and cooling load analysis
 - Logical system
 - Mechanical system and duct work
 - Mechanical pipe system
 - Inspect system
- Electrical Design
 - Lighting analysis
 - Power and communication design
 - Plumbing design
 - Fire protection
 - Schedules
 - Documentation
 - Printing

Business Address:
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2nd Floor, Moosa Complex,
Above IOB, Main Road,
Neyyattinkara, Kerala - 695121

E: cadpointneyyattinkara.in
Web: www.cadpointneyyattinkara.in



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Vintech Systems

No: 5/45, Mathicode, Pandaravilaí,

Thickanamcode Post, Kanyakumari District - 629804.

© 8098577988, 8300185460, @ vintechsystems@yahoo.com

TIN NO.: 33766263012, CST NO.: 1253421, Dt.: 13-10-2014

GST IN: 33COVPM3622P1Z9

18 April 2018

The Head of the Department
Department of Electrical and Electronics Engineering
Mar Ephraem College of Engineering and Technology
Malankara Hills, Elavuvilai, Marthandam – 629 171

Sub: Memorandum of Understanding Regarding

With reference to your request, we are pleased to be in association with your department officially by signing a Memorandum of Understanding (MoU). This MoU associates the two organizations for Technical Expertise support, Consultancy, Internship and Training for students.. This MoU is valid for a period of one year from the date of signing.

Thanking You

Yours Faithfully, For Vintech Systems,

Director,

G.Sunil Livingston, M.E,M.B.A.,

Email: jtrfibres@gmail.com

J.T.R.Fibres

Mondaikadu, Kanyakumari District, Tamilnadu-629252

of, No: JTR/06/2018

24-09-2018

The Head of the Department Department of Electrical and Electronics Engineering Mar Ephraem College of Engineering and Technology Malankara Hills, Elavuvilai, Marthandam – 629 171

Sub: Memorandum of Understanding Regarding

ith reference to your request, we are pleased to be in association with your department officially by gning a Memorandum of Understanding (MoU). This MoU associates the two organizations for chnical expertise support, consultancy, Internship for students and training for students. This MoU is alid for a period of one year from the date of signing. The clauses of the MoU with further information ay be signed during a mutually agreed date in the near future.

Thanking You

Jackson Thanga Roy

Managing Director

J.T.R. FIBRES 8/24B-1, KARIYAVILAI MONDAIKADU - 629 252 KANYAKUMARI DIST.



_{தி}னால் இவன்முடிக்கும் என்றாய்ந்து _{திக்}கண் விடல். Plot.No.1A, (1st Floor), 2nd Main Road, Burma Colony, Perungudi, Chennai-600 096, Tamil Nadu, India.

E-Mail:powerlabinstruments@gmai.com

Web:www.powerlabinstruments.com

Mob: 9176095669, 9445481054.ph.044-42347878.

TIN No. :33410987908, CST No. : 1011892 / Dt. : 17.02.2010

RefNo: CREST/2022/SLS/065

20 Nov 2018

To

The Head of the Department

Department of Electronics and Communication Engineering

Mar Ephraem College of Engineering and Technology

Malankara Hills, Elavuvilai, Marthandam – 629 171

Sub: Memorandum of Understanding Regarding

Reference: Your Request letter dated 20 Nov 2018

With reference to your request, we are pleased to be in association with your departmentofficially by signing a Memorandum of Understanding (MoU). This MoU associates the twoorganizations for technical expertise support, consultancy, Internship for students and trainingfor students. This MoU is valid for a period of one year from the date of signing. The clauses ofthe MoU with further information may be signed during a mutually agreed date in the nearfuture.

Than king you

With best Regards,

For Power Lab Instruments



கு.சண்முகம்.

nugam

binstruments@gmail.com Cell: 09445481054 & 044-42347878



Mar Ephraem

College of Engineering and Technology

(Run by Catholic Diocese of Marthandam)

Approved by AICTE | Affiliated to Anna University | Accredited by NAAC | DST FIST Supported Institution

Accredited by NBA for Mechanical, CSE & Civil (2022-2025)(Tier II)

Malankara Hills, Elavuvilai, Marthandam – 629 171, Kanniyakumari District, Tamilnadu

Department

of

Mechanical Engineering

NEEL INDUSTRIES PVT LIMITED

Padur Road, Kathambakkam Kuthambakkam Village, Kancheepuram Dist Tamilnadu- 600124,India, Tel:+91-44-26811982



Memorandum of Understanding

Ref:ND/MOU/06/2017

This Memorandum of Understanding is in effect from 24th November 2017 Between

NEEL INDUSTRIES PVT LIMITED., Kuthambakkam Village, Kancheepuram Dist, Tamilnadu, represented by ExecutiveVice President repugnant to the context or meaning there of will include its successors-in-interest and assigns on the first part.

And

Mar Ephraem College of Engineering and Technology, Elavuvilai, Marthandam, kanyakumari - 629171, Tamil Nadu, India represented by its Principal, Mar Ephraem College of Engineering and Technology herein after referred to as Mar Ephraem Mechanical, which unless repugnant to the context or meaning thereof, will include its successors-in-interest and assigns on the second part.

This MOU is signed and extended with the objectives of ushering and strengthening better industryacademic linkages for mutual benefit. The two parties will jointly work towards the common cause with definite vision and missions of long and short-term perspectives. This MoU will be take effect from the date of signing for 1 year, it may be renewed with the both the parties wish after one year.

CLAUSES OF MOU

- Relationships: Both the parties will strive to build long term relationship by involving one another as the
 guest of honors at all functions like technical seminars, symposiums, and motivating, encouraging the
 students and faculties.
- 2. Research: Primary purpose of this MOU itself is to involve the advanced research at their own areas of operation of both parties. Accordingly, any supports by way Technical Expertise literature supports infrastructure supports (workshops) and other logical supports may be availed to the extent of maintaining secrecy and intellectual property rights of both parties. Outcome of any joint research or development activities, arising out of project works shall have equal right to patent the development with due acknowledgement of other party's contribution.

INDUSTRIES PVT LIMITED

ur Road, Kathambakkam Jthambakkam Village, Kancheepuram Dist amilnadu- 600124, India, Tel: +91-44-26811982



3.Consultancy:If institute is taking any industrial project or consultancy work (Solution providing through latest technology) through the research the dedicated faculties on both sides (party) shall involve if the both parties wish. Technical supporter to one another at all technical, administrative, management and R & D areas. The knowledge sharing by consultancy of the expert members are available at free of cost at the regular college / office functioning hours. Consultancy of the college / office hours if any may be charged accordingly.

4. Human Resource & Training: Human resources at both sides shall be strengthened by way of conducting Workshops/Lectures/Study camps at regular interval. Both parties shall organize regular / routine training programme to various levels of Technical and managerial manpower.

5.Student Project: As per the university norms pre final year and final year students are undergoing projects and internship, NEEL INDUSTRIES shall support in such way to enhance the skill sets for the student's community as per the mutual understanding and based on both parties convenient time slot.

6.Internship & Career Opportunities for the Students: Students will be allowed to do internship in NEEL INDUSTRIES after completion of 4th semester of study. After completion of 7th semester based on the NEEL INDUSTRIES's requirement preference will be given to recruit the students of Mar Ephraem Mechanical through campus under Board of Apprenticeship Training (BOAT) scheme as Apprentices for one-year period& their joining will be only after B.E course completion. No charges will be collected from either party for the same

Signatory of NEEL INDUSTRIES

Executive Vice President-Operations

Signature of HOD

Department of Mechanical Engineering

Signature of Principal Mar Ephraem College of

Engineering and Technology

ENGINEERING

JBM Auto Limited

No.1, FORD Supplier's Park, S.P.Koil Post,
Chengalpattu Taluk, Kancheepuram Dist
Tamilnadu-603204,India, Tel:+91-44-67417788



Memorandum of Understanding

Ref:JBM/MOU/13/2017

This Memorandum of Understanding is entered into on this 22nd of November 2017

Between

JBM Auto system Pvt.Ltd., No.1, FORD Supplier's Park, S.P.Koil Post, Chengalpattu Taluk, Kancheepuram Dist, Tamilnadu, represented by ExecutiveVice President repugnant to the context or meaning there of will include its successors-in-interest and assigns on the first part.

And

Mar Ephraem College of Engineering and Technology, Elavuvilai, Marthandam, kanyakumari - 629171, Tamil Nadu, India represented by its Principal, Mar Ephraem College of Engineering and Technology herein after referred to as Mar Ephraem Mechanical, which unless repugnant to the context or meaning thereof, will include its successors-in-interest and assigns on the second part.

This MOU is signed and extended with the objectives of ushering and strengthening better industry-academic linkages for mutual benefit. The two parties will jointly work towards the common cause with definite vision and missions of long and short-term perspectives. This MoU will be take effect from the date of signing for 1 year, it may be renewed with the both the parties wish after one year.

CLAUSES OF MOU

- 1. Relationships: Both the parties will strive to build long term relationship by involving one another as the guest of honors at all functions like technical seminars, symposiums, and motivating, encouraging the students and faculties.
- 2. Research: Primary purpose of this MOU-itself is to involve the advanced research at their own areas of operation of both parties. Accordingly, any supports by way Technical Expertise literature supports infrastructure supports (workshops) and other logical supports may be availed to the extent of maintaining

3M Auto Limited

No.1, FORD Supplier's Park, S.P.Koil Post, Chengalpattu Taluk, Kancheepuram Dist Tamilnadu-603204,India, Tel:+91-44-67417788



secrecy and intellectual property rights of both parties. Outcome of any joint research or development activities, arising out of project works shall have equal right to patent the development with due acknowledgement of other party's contribution.

- 3.Consultancy: If institute is taking any industrial project or consultancy work (Solution providing through latest technology) through the research the dedicated faculties on both sides (party) shall involve if the both parties wish. Technical supporter to one another at all technical, administrative, management and R & D areas. The knowledge sharing by consultancy of the expert members are available at free of cost at the regular college / office functioning hours. Consultancy of the college / office hours if any may be charged accordingly.
- **4.Human Resource & Training:** Human resources at both sides shall be strengthened by way of conducting Workshops/Lectures/Study camps at regular interval. Both parties shall organize regular / routine training programme to various levels of Technical and managerial manpower.
- **5.Student Project:**As per the university norms pre final year and final year students are undergoing projects and internship, JBM shall support in such way to enhance the skill sets for the student's community as per the mutual understanding and based on both parties convenient time slot.
- **6.Internship & Career Opportunities for the Students:** Students will be allowed to do internship in JBM after completion of 4th semester of study. After completion of 7th semester based on the JBM's requirement preference will be given to recruit the students of **Mar Ephraem Mechanical** through campus under Board of Apprenticeship Training (BOAT) scheme as Apprentices for one-year period& their joining will be only after B.E course completion. No charges will be collected from either party for the same.
- 7. Continuous Education for the employees of JBM: An Under Graduate Degree program will be made available to candidates who successfully completed the 3year Diploma Program, this will be possible on meeting the required criteria as set out by the "SECOND PARTY"

3M Auto Limited

No.1, FORD Supplier's Park, S.P.Koil Post, Chengalpattu Taluk, Kancheepuram Dist Tamilnadu-603204,India, Tel:+91-44-67417788



Disclaimer: This MOU does not compel or force any party either fully or partly to perform a function or fulfill any commitment agreed upon on best interests. All that agreements made between the parties are only obligatory and not in any way mandatory. It is further made abundantly clear that no third party mediation or arbitration is earnest or warranted. The MoU is open ended in nature, but can be terminated with a month's notice on either side given to the other party. Both the parties shall however meet/discuss once in a year to review the MOU and modify the scope of works if any, depending on the needs arises then and there.Both PARTIES agrees that it shall not solicit the services of the faculty assigned to conduct the training program under this agreement.

Signatory of JBM

Signature of HOD
Department of Mechanical Engineering

Signature of Principal Mar Ephraem College of Engineering and Technology





Memorandum of Understanding Ref:CT/MOU/13/2017

This Memorandum of Understanding is in effect from 24th November 2017

Between

CHARA TECHNOLOGIES,4A, 3rd Phase Industrial Estate, Guindy Industrial Estate, Guindy, Chennai, Tamil Nadu, represented by Executive Vice President repugnant to the context or meaning there of will include its successors-in-interest and assigns on the first part.

And

Mar Ephraem College of Engineering and Technology, Elavuvilai, Marthandam, kanyakumari -629171, Tamil Nadu, India represented by its Principal, Mar Ephraem College of Engineering and Technology herein after referred to as Mar Ephraem Mechanical, which unless repugnant to the context or meaning thereof, will include its successors-in-interest and assigns on the second part.

This MOU is signed and extended with the objectives of ushering and strengthening better industry-academic linkages for mutual benefit. The two parties will jointly work towards the common cause with definite vision and missions of long and short-term perspectives. This MoU will be take effect from the date of signing for 1 year, it may be renewed with the both the parties wish after one year.

CLAUSES OF MOU

- 1. Relationships: Both the parties will strive to build long term relationship by involving one another as the guest of honors at all functions like technical seminars, symposiums, and motivating, encouraging the students and faculties.
- 2. Research: Primary purpose of this MOU itself is to involve the advanced research at their own areas of operation of both parties. Accordingly, any supports by way Technical Expertise literature supports infrastructure supports (workshops) and other logical supports may be availed to the extent of maintaining secrecy and intellectual property rights of both parties. Outcome of any joint research or development activities, arising out of project works shall have equal right to patent the development with due acknowledgement of other party's contribution.
- **3.Consultancy:**If institute is taking any industrial project or consultancy work (Solution providing through latest technology) through the research the dedicated faculties on both sides (party) shall involve if the both parties wish. Technical supporter to one another at all technical, administrative, management and R & D areas. The knowledge

4A, 3rd Phase Industrial Estate, Guindy Industrial Estate, Guindy, Chennai, Tamil Nadu- 600032



sharing by consultancy of the expert members are available at free of cost at the regular college / office functioning hours. Consultancy of the college / office hours if any may be charged accordingly.

4.Human Resource & Training: Human resources at both sides shall be strengthened by way of conducting Workshops/Lectures/Study camps at regular interval. Both parties shall organize regular / routine training programme to various levels of Technical and managerial manpower.

5.Student Project:As per the university norms pre final year and final year students are undergoing projects and internship, **CHARA TECHNOLOGIES** shall support in such way to enhance the skill sets for the student's community as per the mutual understanding and based on both parties convenient time slot.

6.Internship & Career Opportunities for the Students: Students will be allowed to do internship in **CHARA TECHNOLOGIES** after completion of 4th semester of study. After completion of 7th semester based on the **CHARA TECHNOLOGIES** requirement preference will be given to recruit the students of **Mar Ephraem Mechanical** through campus drive and their joining will be only after B.E course completion. No charges will be collected from either party for the same

Signatory of CHARA TECHNOLOGIES

Signature of HOD

Department of Mechanical Engineering

Signature of Principal

Mar Ephraem College of

Engineering and Technology

MALANKARA HILLS

MALANKARA HILLS

MALANKARA HILLS

MARTHANDAM 829 171

MARTHANDAM BISTRICT

KANYAKUMARI DISTRICT

KANYAKUMARI DISTRICT

KANYAKUMARI DISTRICT

MARTHANDAM 10010



Kavi Software Solution

John Plaza, 2nd Floor, Near S.E.T.C Depot, Main Road,

Marthandam, Kanyakumari Dist - 629 165. Phone: 04651-272944, 94430 56744 Email: tn.marthandam@caddcentre.com

MEMORANDUM OF UNDERSTANDING

BY AND BETWEEN

CADD CENTRE TRAINING SERVICES

John Plaza- 2nd Floor, Near SETC Depot, Marthandam Kanyakumari - 629165. AND

MAR EPHRAEM COLLEGE OF ENGINEERING & TECHNOLOGY

Malankara Hills, Elavuvilai, Marthandam, Kanniyakumari - 629171. 2017-2018

This memorandum of understanding (MOU) is being established between CADD Centre Training Service, Main Road, Marthandam - 629165 (here in after referred as CADD Centre) and MAR EPHRAEM COLLEGE OF ENGINEERING & TECHNOLOGY, Malankara Hills, Elavuvilai, Marthandam, Kanniyakumari - 629171 (here in after referred as MAR EPHRAEM MECHANICAL) to provide Value Added Courses, Workshops, Short Term Training Programs, Faculty development Program, Entrepreneurial Development Program to the students of MAR EPHRAEM MECHANICAL.

Under this MOU, CADD Centre and MAR EPHRAEM MECHANICAL agrees to cooperate in strengthening the knowledge of MAR EPHRAEM MECHANICAL students in the area of Engineering Software. Hardware and faculty facilities are available at MAR EPHRAEM MECHANICAL and CADD Centre.

THE TERMS OF THE MOU ARE AS FOLLOWS:

- 1. The main objective of CADD Centre and MAR EPHRAEM MECHANICAL will be to impart quality Training/Education services to the students of MAR EPHRAEM MECHANICAL.
- 2. CADD Centre shall make provision for modification, improvements or changes suggested by MAR EPHRAEM MECHANICAL in CADD Class and course fee will be fixed on agreeable terms between both parties.

CIN:U72300TN1998PTC041242 | TIN: 33470803478 | CST: 960215 | PAN: AAB CC 1473 B | Service Tax No: AAB CC 1473 B St001 | IE CODE: 0405007329 | GST No: 33AABCC1473B1ZD

Corporate Office:



Kavi Software Solution

John Plaza, 2nd Floor, Near S.E.T.C Depot, Main Road,

Marthandam, Kanyakumari Dist - 629 165. Phone: 04651-272944, 94430 56744 Email: tn.marthandam@caddcentre.com

- All the decision should be made with the consent of the Principal, MAR EPHRAEM
 COLLEGE OF ENGINEERING & TECHNOLOGY and Centre Head, CADD Centre,
 Marthandam.
- For all interactions of this MOU, Program Coordinator from MAR EPHRAEM MECHANICAL will be the contact person and the Centre Head – Marthandam from CADD Centre will be the contact person for further execution.
- Through this agreement Third year of B.E students of MAR EPHRAEM MECHANICAL will be given training in CATIA V5.
- The total training session will be completed in EVEN SEM a refresher course 40 hours will be conducted.
- In charge of the course will be responsible for the collection and payment of the course fees by the students to participate in the course.
- 8. Course fees, terms and conditions can be revised only with a mutual agreement between both the parties.
- CADD Centre agrees to provide assistance in organizing workshops, STTP, FDP and EDP.
- 10. It is agreed upon that the value added courses should be conducted only in the timings mutually agreed by both parties.
- 11. CADD Centre will provide the course material / certificate / Faculty members for each course which is intended to develop the knowledge of the students through the above said joint effort.
- 12. In addition to CADD Centre faculty members, MAR EPHRAEM MECHANICAL will provide Computer Lab and Class rooms and a faculty Coordinator, a supporting staff, if required to run the course.
- 13. For the conduct of the whole course the Centre Head, CADD Centre Marthandam will be in the charge.
- 14. It is also mutually agreed upon by both the parties that the courses once offered will be completed in all respects. Both the parties are responsible for the smooth conduct of the

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planned courses without causing any damage to the properties and any hardship to the students.

- 15. The payment terms as agreed by both CADD centre and MAR EPHRAEM MECHANICAL are as follows:
 - 50% of the course fees should be paid during the starting of the course.
 - Remaining 50% of the course fees shall be paid by the completion of the course.
- 16. Course plan and the course material for the course must be approved by both parties well in advance and to be given to students in the first day of their course.
- 17. The Principal and Program Coordinator will be responsible for payment of the course fees by the students to participate in the course.
- 18.Installments of the shares released by MAR EPHRAEM MECHANICAL should be in the form of cash or cheque.

ELAVUVILAI RTHANDAM - 829 171

CANYAKUMARI DISTRIC

Place: Elavuvilai

Date: 07.06.2017

HOD/Mechanical MAR EPHRAEM

CADD CENTRE, MARTHANDAM

PRINCIPAL MAR EPHRAEM

CENTRE HEAD

CADD CENTRE, MARTHANDAM

 $\mathbf{ADD}^{\scriptscriptstyle{(8)}}$

John Plaza, 2nd Floor, Near SETC Depot Main Road, Marthandam Kanyakumari District - 629 165

Phone: 9488176744

CIN:U72300TN1998PTC041242 | TIN: 33470803478 | CST: 960215 | PAN: AAB CC 1473 B | Service Tax No: AAB CC 1473 B S1001 | IE CODE: 0405007329 | GST No: 33AABCC1473B1ZD



GG MARUTI GUIDES& MAR EPHRAEM COLLEGE OF ENGINEERING AND TECHNOLOGY – (DEPARTMENT OF MECHANICAL ENGINEERING) MEMORANDUM OF UNDERSTANDING

This memorandum of understanding (MoU) is being established between GG MARUTI Marthandam – 629165 and Department of **MECHANICAL** GUIDES. Chankai. **OF ENGINEERING** AND ENGINEERING. MAR **EPHRAEM COLLEGE** TECHNOLOGY, Elavuvilai, Marthandam -to provide Automobile Practical Training Program to the students of Department of Mechanical Engineering Mar Ephraem College of Engineering and Technology

Under this MoU, GG MARUTI GUIDES and MAR EPHRAEM MECHANICAL agrees to co-operate in strengthening the knowledge of MAR EPHRAEM MECHANICAL students in the area of Automobile Engineering.

THE TERMS OF THE MOU ARE AS FOLLOWS:

- 01. The main objective of GG MARUTI GUIDES and MAR EPHRAEM MECHANICAL DEPARTMENT to impart quality practical Training to the students of MAR EPHRAEM MECHANICAL DEPARTMENT whenever required.
- 02. **GG MARUTI GUIDES** shall make provision for modification, improvements or changes suggested by **MAR EPHRAEM MECHANICAL DEPARTMENT** in the Practical Training Program.
- 03. All the decision should be made with the consent of the Principal, MarEphraem College of Engineering and Technology and Managing Director **GG MARUTI GUIDES**.
- 04. For all interactions of this MoU, Mechanical HOD from MAR EPHRAEM MECHANICAL DEPARTMENT will be the contact person and the Managing Director GG MARUTI GUIDES will be the contact person for further execution.



GG MARUTI GUIDES, CHANKAI, KANYAKUMARI- 629165

- 05. Through this agreement a hands on practical training will be given to Third year Mechanical Engineering Students of Mar Ephraem.
- 06. GG MARUTI GUIDES agrees to provide assistance in organizing workshops for students outside the college.
- 07. Both the parties are responsible for the smooth conduct of the planned courses without causing any damage to the properties and any hardship to the students.

Place: MARTHANDAM

Date : 28.02.2017

GG MARUTI GUIDES

MAR EPHRAEM

MAR EPHRAEM

Head of the Department Department of Machanical Engineering Elavuvilai, Marthandam - 629 171

Prof. Dr. A. Lenin Fred. M.E.

Begariment of managering & Technology MAR EPHRAEM COLLEGE
Mar Ephraem College of Engineering & Technology
OF ENGINEERING & TECHNOLOGY MALANKARA HILLS, EL AVUVILAI, MARTHANDAM - 629 KANYAKUMARI DISTRICT, TAMILNALIU, INDIA





NO-4/374, Pillaiyar Koil Street, Pallavan Nagar, Perumbakkam Main Road, Medavakkam, Chennai 600 100. Amachinecare279@yahoo.com

491 99413 41188 GST IN: 33 AYGPS 7685 B2Z5



MACHINE CARE CHENNAI & MAR EPHRAEM COLLEGE OF ENGINEERING AND TECHNOLOGY – (DEPARTMENT OF MECHANICAL ENGINEERING) ANNUAL MAINTENANCE CONTRACT

This Annual Maintenance Contract (AMC) is being established between Machine Care Chennai and the Department of Mechanical Engineering, Mar Ephraem College of Engineering and Technology, Elavuvilai, Marthandam to maintain the machinery of Manufacturing Technology Laboratory Department of Mechanical Engineering Mar Ephraem College of Engineering and Technology every year.

THE TERMS OF THE AMC ARE AS FOLLOWS:

- 01. Machine care agrees to provide preventive maintenance check up at the commencement of the contract period followed by visit made after every six months from the date of the previous check up or the date of fault rectification whichever is later.
- 02. Fault rectification shall be made against service calls made by the customer reporting any failure during the contract period.
- 03. Performance of service will be confined to normal working days as applicable to machine care employees and working hours shall be provided at all times considering the requirement of Mar Ephraem College of Engineering and Technology.
- 04. This AMC assumes that the equipment is in normal working condition at the time of acceptance by the customer of this agreement. If this is found otherwise the AMC conditions are subject to renegotiation.
- 05. Customer is not expected to engage any third party to service and maintain the equipment during the contract period. Such act by the customer is liable to invalidation of the AMC.

MACHINE CARE

NO-4/374, Pillaiyar Koil Street, Pallavan Nagar, Perumbakkam Main Road, Medavakkam, Chennai 600 100. machinecare279@yahoo.com



+91 99413 41188 GST IN: 33 AYGPS 7685 B2Z5

CUSTOMER'S OBLIGATIONS: -

- 1. The customer will give Machine Care full access to the machinery to enable Machine Care to provide maintenance service, and will make available to Machine Care technician's appropriate customer staff who are familiar with the mechanical problems and will provide safe working space and suitable storage for maintenance equipment and spare parts.
- 2. The machinery covered by the AMC or part thereof shall be moved from the location of installation expect under the supervision of Machine Care technicians and registering the new location in the records with the change of contract terms if any.
- 3. The customer shall not directly or indirectly alter any parts of the machinery which will affect the operation of the machines without prior approval from the Machine Care and without the presence of Machine Care technicians.

Exemptions:

- 1. Machine Care shall not be liable for failure to perform any of its obligations if such failure results from the act of God, fire, storm, earthquake, explosion, accident, lock-out, industrial dispute, labor trouble, transportation embargo, imminence, or due existence of any state of emergency, war-like conditions, riots, refusal of license or imposition of sanctions, any measures taken by Government whatever which render it impossible or impracticable for Machine Care to perform its obligation and/any act beyond the control of Machine Care.
- 2. Exclusion of loss of or damage due to lightning, explosion, and impact of damage arising directly or indirectly from lightening, clearance of debris, and dismantling necessitated thereby chemical explosion, smoke, soot, aggressive substances, impact of aircraft and other aerial devices and/or article dropped therefrom.

Place

: Chennai

Date

: 17-04-2017

H.O.D/MECHANICAL

MAR EPHRAEM

Read of the Department

Department of Mechanical Engineering

Mar Ephraem College of Engineering & Technology

Elavuvilai, Marthandam - 629 171

MALANKARA HILLS
ELAVUVILAI
MARTHANDAM - 828 171
KANYAKUMARI DISTRICT
TAMILNADU, INDIA

WY
A SO TONIA

Managing Director
Machine Care Chennai

PRINCIPAL MAR EPHRAEM

P. of. Dr. A. Lenin Fred, M.E., Ph.D.
PRINCIPAL
PRINCIPAL

MAR EPHKAEM COLLEGE
OF ENGINEERING & TECHNOLOGY
MALANKARA HILLS, EL AVUVILAI, MARTHANDAM - 629 171
KANYAKUMARI DISTRICT, TAM!LNADU, INDIA.

