

Memorandum of Understanding

For Institute-Industry Interaction

Between

**Vel Tech Rangarajan Dr. Sagunthala R&D Institute
of Science and Technology**

Deemed to be University Estd.u/s 3 of UGC Act 1956



Vel Tech

Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology
(Deemed to be University Estd. u/s 3 of UGC Act, 1956)

And

Pentagon Rugged Systems (India) Pvt Ltd.

(502, SAFA Apartment, Redhills, Hyderabad, Telangana 500004)



Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, a Deemed to be University located at No.42, Avadi-Veltech Road, Avadi, Chennai-600062, Tamil Nadu (hereinafter referred to as **Vel Tech**) and **Pentagon Rugged Systems (India) Pvt Ltd.** (hereinafter referred to as **PRS**) having its head office located at 502, SAFA Apartment, Redhills, Hyderabad, Telangana 500004, having recognized the importance on the Industry Academia Relation, both have entered into the agreement on this 20th day of October 2020, which witnesses as follows:

1. Preamble

Vel Tech is known for its excellent and unique National Facilities such as Center of Excellence for Manufacturing Facilities, High Speed Bearing Test Facility, Automotive Engine Test Facility and E Waste Management, to mention a few. Global Alliances of Vel Tech has International Relations with more than 390 Institutions across 30 countries and has entered in the Memorandum of Understanding (MoU) with more than 210 Institutions. NIDHI Centre of Excellence at Vel Tech Technology Business incubator programme supported by DST promotes entrepreneurship, innovation and venture development. Since its inception from 2010, Vel Tech TBI has supported more than 145 startups.

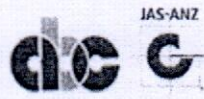
Vel Tech has been categorized as Band A Institution (rank between 06-25) in category of University & deemed to be University by ARIIA (Atal Ranking of Institutions on Innovation Achievements). In NIRF India Rankings 2020, Vel Tech has been ranked 95th out of 1071 Institutions in Engineering Category. The ranks secured in THE Impact Rankings 2020 in Sustainable Development Goal categories reveal that Vel Tech has been consistently proving to provide the holistic education to its students making them responsible citizens by inculcating the concept of sustainability in Teaching, Research and Practice. Also, QS I-GAUGE has awarded Vel Tech with a Diamond University Rating.

• About PRS



PENTAGON RUGGED SYSTEMS (INDIA) PVT.LTD

AN ISO 9001-2015 CERTIFIED COMPANY



We at PRS are
Complete turnkey
solution provider
in Every Defence Strategic
Electronic Systems,
product designer
/developer
primarily serving Harsh
Environment to meet
defense standard

ABOUT US

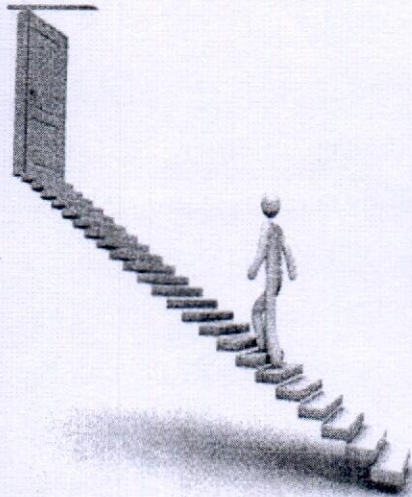
- Founded in the Year 2003
- Solution Provider for Defense and other allied forces.
- An ISO 9001-2015 Certified Company
- Member and Associated with CII, FICCI, FTCCI, IoD.
- Life Member of Computer Society of India
- Fellow Member: Institute of Directors
- Five Incubation Centers at different premier institutes.
- Collaboration with Deemed Universities Colleges across India
- Patent applied, some more awaited.
- Received various awards and appreciation
- Registered and working with most of the DRDO Labs
- Working with CSIR Labs
- Indigenous product development meeting JSS55555 standards
- Having National and International presence.



FLASH POINTS ABOUT US

- started in the year 2003
- Close to 20 years of experience in the industry
- Worked in various national prestigious projects
- Supplied various systems and subsystems.
- Focused on rugged mil grade systems.
- Registered with close to 32 DRDO Labs across India
- Closely associated with CSIR-Labs
- Associated with premier academy like IIT, NIT
- Having incubations in Deemed Universities and colleges
- **Innovative approaches to the deployment strategy**
- Understand the End-User requirement
- Innovative in its approach and Customer focus
- Tech savvy, engineering orientation
- Wide market reach
- Financially strong. Able to invest in growth
- Lifetime support
- Committed dedicated team
- Young management
- Every business need under ONE ROOF

The Road that we are travelling



2003-Started the initial drive
 2004-Designed & Developed Wet Lab for Ship
 2005-Developed missile simulator
 2006-Developed Command Control Consoles
 2007-Designed and Developed Rugged Systems
 2007-Various Awards and recognitions
 2008-Initiated various incubation centres in academy
 2009-Progressive Own Office space
 2010-Various simulators including TRACATS
 2011-Part of various delegations to US/Israel and other countries.
 2012-Designed Autonomous Underwater Vehicle
 2013-Developed various systems for Armoured Vehicle
 2014-LPAS/ LOMHA Development
 2015-Developed 500mtrs AUV for CMERI
 2016-Designed and developed VVD for T-90/T-72
 2017-Developed 1000mtrs AUV for CMERI,
 2018-Signed MoU with Ericson for NB IoT
 2019-NBIOT Lab at NIT-K
 2020-Medical Equipment Design including NIGM/LCVL

Business Model that we follow

- Indigenous product development with International association and local support
- Best-in-Class Quality Standards
- Life Time Support
- Service support centers in major cities to minimize down time.
- Supply as integrated solutions.
- Identify and meet the needs of targeted industries
- Product availability for all the segments
- End product design

Facilities that are available with us

- PCB Design facility (In-house)
- PCB fabrication (Outsourced)
- Embedded Programming Capability (In house)
- Embedded Design and product realization team (In house)
- Fabrication facility (Outsourced) - (Design - In house),
- Integration facility with QC (In house)
- Documentation division (In house)



2. Objective

The objectives of this agreement are many and would evolve with time and the quality of inputs provided by both the parties. At the outset the following can be envisaged.

- a) To involve students in the industry practices and processes so as to have an understanding on industry expectations for the fresh graduates.
- b) To provide for regular knowledge exchange between institute and industry experts.
- c) To create opportunities to carry out Joint research & Consultancy for mutual benefit in areas where deemed necessary by both.

3. Hence Vel Tech and PRS agree:

- ❖ **To offer Real Time Projects to the final year Students for a duration of 9 months or 6 months.** For this, PRS will identify Real Time projects for students in different areas for suitable branches of under graduate and post graduate Engineering students (the distribution among the branches will be made available well in advance to Vel Tech). Students for the Projects will be selected by PRS through a screening procedure. Vel Tech will designate one of their Faculty Members as coordinator for students' projects to continuously monitor the progress of these Projects.
- ❖ **To organize In-Plant Training** to the units of PRS. Every year during the summer vacation and winter vacation, a group of 5 to 10 students from Vel Tech would visit the units of PRS for a period of 10 days. Date of visit and the batch size will be decided well in advance by mutual consultations.
- ❖ **To recruit eligible candidates:** If the students' performance was satisfied during their project phase, PRS will give preference for those candidates in their recruitment process.
- ❖ **To deliver courses:** PRS will nominate suitable experts from their organization to deliver specialized credit course on the emerging technologies to the students of Vel Tech for which Vel Tech would take care of the travel expenses and the remuneration to the expert.
- ❖ **To offer Internship to the Faculty at PRS for 2 to 3 months.** For this, Vel Tech would identify interested faculty in the relevant domain and share their profiles. PRS would shortlist the faculty through a screen process. The duration of the internship (not less than 2 months) will be decided well in advance by mutual consultations.
- ❖ **To jointly carry out Research and Consultancy.** A dedicated team from Vel Tech and PRS will engage in research and consultancy services to support industries in the field of Electronic Component Manufacturing. Mutual area of interest for collaborative research and



consultancy will be identified by the faculty from Vel Tech and expert from PRS. For the collaborative research wherever possible joint proposal will be submitted to the various funding agencies. If any specific research project require confidentiality, then a separate Non-Disclosure agreement can be signed for the same.

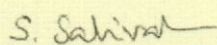
- ❖ In order to achieve the objectives stated in this MOU each party shall be responsible for its own costs and expenses arising from its performance under this MOU.
- ❖ Both parties shall use the name of the other in any advertisement.
- ❖ Each party shall respect the others Intellectual Property Rights (IPR) and shall not use any trade mark, copyright, design, symbol or designation belonging to the other, without prior written approval of the other party.
- ❖ One coordinator from each side shall be appointed for effective monitoring & implementation of the action points of this MOU.

This agreement will be in effect initially for a period of 5 years from the date of signing of this MOU by both the parties and will be renewed further if mutually agreed. Either party may terminate the agreement by written notification signed by the appropriate official of the Institution initiating the notice. Such notice must be received by the other party six months prior to the effective termination date.

However, obligations and commitments already contracted for and involving their parties shall be honoured and continued by both parties until such commitments are completed.

In witness whereof, the parties hereto caused this instrument to be executed as of the day, month and the year indicated below:

For Vel Tech

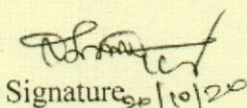


Prof. S. Salivahanan
Signature Vice Chancellor

Prof. S. Salivahanan
Vice Chancellor
Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology
(Chartered in the University Regd. act of UGC Act, 1986)

Date:

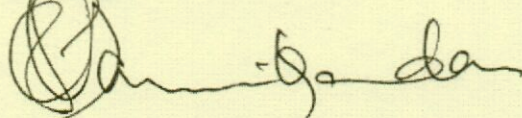
Witness 1



Dr. P. Chandrakumar
Signature Date: Dean
Industry Relations & TBI

Vel Tech
Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology
(Chartered in the University Regd. act of UGC Act, 1986)

For PRS



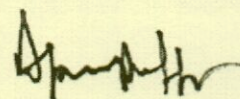
Signature

Dr. S. Manikandan
Managing Director

Date: 30/x/20



Witness 1



Signature

Date: 30/x/20



Vel Tech

Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology
(Deemed to be University Estd. u/s 3 of UGC Act, 1956)

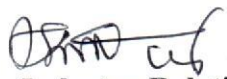
Date: 10th Feb 2022

MOU signed with Pentagon Rugged Systems

MOU Number	MOU -304
Name of the Organization	Pentagon Rugged Systems (India) Private Limited, Hyderabad
Date of signing of MoU	20.10.2020
Next renewal due on	19.10.2025
Objectives of MoU	Students Projects, Industrial Visits & In- plant Training, Guest Lectures, Workshop, Conference, Research & Consultancy

MoU Outcome

Academic Year	Outcome	Training Duration
2020-21	2 students from ECE final year has completed project	11.01.2021 to 25.05.2021
2019-20	3 students from ECE final year has completed project	11.01.2020 to 23.03.2020


Dean Industry Relations & TBI


MoU Coordinator

No.42, Avadi-Vel Tech Road, Vel Nagar,
Avadi, Chennai - 600 062, Tamil Nadu, India.
Landline : +91 44 2684 0262 / 2684 0605
Toll Free : 1800 212 7669
Email : registrar@veltech.edu.in
Website : www.veltech.edu.in



PENTAGON

RUGGED SYSTEMS (INDIA) PVT.LTD

(AN ISO 9001- 2015 CERTIFIED COMPANY)



Ref: PRS/Admin/HR/0530

Date: 24th Sept 2020

To,

Whom so ever it may Concern

INTERNSHIP COMPLETION CERTIFICATE

This is to certify that Mr. ROHIT SHAH (17UEEC0403) was an intern from Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, and had worked on the project "Crop Yield Prediction using Machine Learning Techniques" through virtual mode from 11th Jan 2021 to 25th May 2021. We found him enthusiastic, result oriented, dedicated and his conduct satisfactory. He worked ethically as a part of the team during the tenure. We take this opportunity and wish him all the best for all his future endeavors.

For Pentagon Rugged Systems India Pvt. Ltd.,

Dr. S Manikandan
Managing Director



#502, 11-5-397, SAFA Apartment, Redhills, HYDERABAD-500004, Ph: 040-23398609/23300495
FAX: +91-4023300496, www.prsindia.co.in email. admin@prsindia.co.in

PENTAGON

RUGGED SYSTEMS (INDIA) PVT.LTD

(AN ISO 9001- 2015 CERTIFIED COMPANY)



Ref: PRS/Admin/HR/0530-A

Date: 24th Sept 2020

To,

Whom so ever it may Concern

INTERNSHIP COMPLETION CERTIFICATE

This is to certify that Mr. BISHWAJIT KUMAR BHAGAT (17UEEC0053) was an intern from Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, and had worked on the project "Crop Yield Prediction using Machine Learning Techniques" through virtual mode from 11th Jan 2021 to 25th May 2021. We found him enthusiastic, result oriented, dedicated and his conduct satisfactory. He worked ethically as a part of the team during the tenure. We take this opportunity and wish him all the best for all his future endeavors.

For Pentagon Rugged Systems India Pvt. Ltd.,

Dr. S Manikandan
Managing Director



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FAX: +91-4023300496, www.prsindia.co.in email. admin@prsindia.co.in



Ref: PRS IPL/PROJ/2020/20/06

Date: 15th June 2020

To,

Whom so ever it may Concern

INTERNSHIP COMPLETION CERTIFICATE

This is to certify that **Mr. BOJEDLA NARENDRA NADH CHOWDARY** (16UEEC0023) was an intern from **Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology**, and had worked on the project "**Emotion Recognition using EEG**" at our office from **11th Jan 2020 to 23rd March 2020**. We found him enthusiastic, result oriented, dedicated and his conduct satisfactory.

He worked ethically as a part of the team during the tenure.

We take this opportunity and wish him all the best for all his future endeavors.

For **Pentagon Rugged Systems (INDIA) Pvt. Ltd.**,

Authorized Signatory.





Ref: PRS IPL/PROJ/2020/20/06

Date: 15th June 2020

To,

Whom so ever it may Concern

INTERNSHIP COMPLETION CERTIFICATE

This is to certify that **Mr. IMMADI JANAKI SAI LAKSHMAN SUMANTH** (16UEEC0085) was an intern from **Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology**, and had worked on the project "**Emotion Recognition using EEG**" at our office from **11th Jan 2020 to 23rd March 2020**. We found him enthusiastic, result oriented, dedicated and his conduct satisfactory.

He worked ethically as a part of the team during the tenure.

We take this opportunity and wish him all the best for all his future endeavors.

For Pentagon Rugged Systems (INDIA) Pvt. Ltd.,

Authorized Signatory.





Ref: PRS IPL/PROJ/2020/20/06

Date: 15th June 2020

To,

Whom so ever it may Concern

INTERNSHIP COMPLETION CERTIFICATE

This is to certify that **Mr. R. SAI VENKATARATNAM (16UEEC0201)** was an intern from **Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology**, and had worked on the project **"Emotion Recognition using EEG"** at our office from **11th Jan 2020 to 23rd March 2020**. We found him enthusiastic, result oriented, dedicated and his conduct satisfactory.

He worked ethically as a part of the team during the tenure.

We take this opportunity and wish him all the best for all his future endeavors.

For Pentagon Rugged Systems (INDIA) Pvt. Ltd.,

Authorized Signatory.

