



# MEMORANDUM OF UNDERSTANDING FOR RESEARCH PARTNERSHIP AND COLLABORATION

This MOU is made and executed at Mumbai at this date of 23 February of the year 2019.

#### BETWEEN

RadioJitter Concepts Lab LLP (hereafter RadioJitter) is seeking collaboration with **Don Bosco Institute** of **Technology** (hereafter DBIT) on technologies available with RadioJitter.

**Don Bosco Institute of Technology Mumbai**, hereinafter referred as **DBIT**, (which expression unless excluded by or repugnant to the subject shall mean and include its successors and assigns), is a premier private engineering institute established in 2001 by the Bombay Salesian Society for imparting high quality engineering education in the fields of Electronics and Telecommunications Information Technology, Computer Engineering and Mechanical Engineering at Automobile Road, Kurla (West), Mumbai 400070, Maharashtra.

#### AND

**RadioJitter Concepts Lab LLP**, hereinafter referred as **RadioJitter**, (which expression unless excluded by or repugnant to the subject shall mean and include its successors and assigns), is a company dealing in product, service, sale solutions in embedded electronics and RF at 303 Butterfly Apartment, Panathur Main Rd, Mariyappa Layout, Kadubeesanahalli, Bengaluru, Karnataka 560103. RadioJitter Concepts Lab has been registered in May 2015. RadioJitter is into IOT bases solution, antenna design, software-defined radio sale and research. As a product developer, RadioJitter are working Lora based solution (Gateway and Sensor), for smart city solution. Their focus is RF sensors, gateway development and provides end to end solution with our solution providers. RadioJitter provides consultancy service in LORAWAN gateway deployment, including network simulation and spectrum planning. RadioJitter also provides training and consulting in IOT RF security. We have an e-commerce division which deals in embedded hobby electronics, radio products and HAM/Amateur radio accessories. They are authorized reseller of RTL-SDR Blog, Nooelec, SDRplay, HackRF, DORJI, and NiceRF products.

#### WHEREAS, both DBIT and RadioJitter, now

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- Recognizing that mutual collaboration, given each other's strengths in research and facilities thereof, will mutually benefit the students and faculties of DBIT and RadioJitter.

- Recognizing the importance of research and development in the areas electronics & telecommunications specifically LoRaWAN technology, as well as imparting industrial training/internships to the engineering students.





- Desiring to club their efforts by pooling their expertise and resources.

NOW, THEREFORE, the parties hereto have agreed to enter into a Memorandum Of Understanding (MOU) in consideration of the mutual promises made herein and of good and valuable consideration, the receipt and sufficiency of which both DBIT and RadioJitter hereby acknowledge. DBIT and RadioJitter hereby agree to sign a memorandum of understanding (MOU).

It is mutually agreed by and between the parties as under.

## A. Scope Of The Collaboration:

#### I. Projects To Be Executed Under Guidance & Supervision Of RadioJitter:

- a. RadioJitter to provide reference to all baseline software and tools required for a project.
- b. Projects can be both hardware/ software based.
- c. Projects can be undertaken by the faculty of DBIT with/ without a student team subject to the area of expertise and the time duration.
- d. RadioJitter to provide complete hardware required for a project.

#### II. Internships For Students And Faculty:

- a. RadioJitter would accommodate students of DBIT who have completed 5th semester of their programme in such a number that RadioJitter deems convenient to it for the purpose of providing industrial training/ internship.
- b. The number of internships and duration of each internships can be mutually decided both parties.
- c. RadioJitter would provide students working as interns on projects under this MoU, with project completion and letter of recommendation certificates.

## III. Expert Lectures:

a. To facilitate regular interaction between the faculty and students of the institute and RadioJitter through expert lectures.

## IV. Student Placement:

a. RadioJitter can give preference to deserving students of DBIT in hiring.

#### V. Others:

- a. RadioJitter may seek assistance/guidance of DBIT faculty member/s in product/process modification, modernization, trouble shooting, etc.
- b. RadioJitter to provide components at a subsidized rate to DBIT.
- c. RadioJitter and DBIT will work towards combined paper publications in reviewed journals and conferences.
- RadioJitter may showcase its business activities at the seminar/workshop/conference, etc. at DBIT.
- e. RadioJitter may avail library, computational facilities and equipments at DBIT as per the prevailing rules and norms in the institute.





## **B.** Ownership Within The Collaboration:

In case of projects offered by RadioJitter to DBIT,

- 1. The approach, code, results, documents thus generated in any project would be joint property of RadioJitter and DBIT.
- 2. There will be sharing of information, with both parties giving each other due credit of work in an explicit written declaration.
- RadioJitter might have to expose its trade secrets, processes and confidential information during the course of a project and hence prior consent will be sought by each party before any sort of publication and discussion involving or citing the outputs of the project.
- 4. If any IP (Intellectual Property) is generated in the projects, it would be shared by both parties.

## C. Mode of Collaboration with reference to projects:

- 1. As projects would be executed remotely for most of the parts, a very strong communication and collaboration mode is expected.
- 2. RadioJitter and DBIT project owner would engage in technical discussion weekly via Webex/Skype.
- 3. The work products (document, codes, simulation and results) would be uploaded in Dropbox in a weekly basis by DBIT project team.
- 4. The project stakeholders (RadioJitter and DBIT project owners) would discuss regularly through Whatsapp.
- 5. The final report, code, results would be shared to RadioJitter via Dropbox and mail.
- 6. If a project effort is leading to any product development, a licensing agreement would be developed.
- 7. In case of, any need for a third party (any other department or company or organization) involvement, approval of both parties to be seeked.

### D. Time, Cost and Quality Metrics:

- 1. The duration of a project shall be discussed and agreed upon by both parties.
- 2. Under this MoU, in case of any activity involving expenditure, financial aspects such as amount, payment conditions, etc. would be spelt out clearly before starting the activity.
- 3. There would be a fixed budget allocation for each project.
- 4. The budget agreed upon by both parties, would be utilized for internship and perks for the individuals associated with the projects.
- 5. Part payments will be done, depending on the milestones of the project (initial, completion and others).

## **Co-ordinating Committee:**

There will be a co-ordinating committee consisting of Principal, Head of the Dept. of DBIT and Directors of RadioJitter and if necessary, two additional members from each organization who will be responsible for the effective implementation of the MOU.

If any charges/ expenses are to be paid by either organization for the facilities provided by the other organization, such will be decided by the co-ordinating committee by a separate 'Rentals and Services Agreement' which also may be modified from time to time as per the need.

## **Disclosure:**

DBIT shall, on its website and business communications, shall make a mention of this RESEARCH PARTNERSHIP AND COLLABORATION. Any referred communications will be sent for review and approval by the co-ordination committee;

DBIT can display on its entrance/ suitable place, a sign board mentioning the name of RadioJitter with its logo as a collaborator;

#### Secrecy:

It is hereby agreed that DBIT shall keep information and data collected completely secret.

#### V. Duration:

The MOU is valid for a period of 36 months from the date of signing.

#### **VI. Termination:**

Either party is free to terminate the agreement by giving a notice of 1 month.

## VII. Governing Law:

The contract shall be governed by the Law of India for the time being in force. In witness whereof the parties hereto have signed, sealed and delivered this agreement on this day, month and year first above written in presence of:

For DBIT, Mumbai

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Fr. Colbert da Silva, Director

For RadioJitter concepts Lab LLP,



Dr. Prasanna Nambiar, Principal