

UNIVERSIDADE ESTADUAL DE CAMPINAS

SCHOOL OF ELECTRICAL AND COMPUTER ENGINEERING

Infrastructure Support Program / EMU - Scientific FAPESP

EMU: ULTRA-HIGH-SPEED DATA TRANSMISSION EQUIPMENT

MANAGEMENT AND SHARING PLAN

1. OBJECTIVES

1.1 The multi-user ultra-high-speed data transmission equipment, hereinafter referred to as EMU, aims to provide the scientific and industrial community of the State of São Paulo, as well as its national and international partners, with an up-to-date experimental apparatus for the development of high-speed optical and THz transmission technologies. The laboratory consists of a high-speed optical transmission setup and a vector network analyzer for the evaluation of devices operating in the THz range. The specific objectives of the EMU are:

I. To provide laboratory infrastructure for testing and validating systemic concepts for high-speed communications.

II. To provide laboratory infrastructure for testing and validating optical and THz range components.

III. To provide an environment for training new professionals and scientists in the field of high-speed communications.

IV. To enhance the scientific output of São Paulo and Brazilian science by enabling experiments with high-speed equipment.

V. To provide experimental infrastructure for the São Paulo and Brazilian industry for validating concepts and components in the field of high-speed communications.

2. EMU MANAGEMENT COMMITTEE

2.1 The EMU will be managed by a committee composed of five members selected through a simple vote among the members of the proposing team, with three members chosen from the proposing team, one member from the high-speed data communication scientific community external to Unicamp, and one member from the industry.

2.2 The EMU will have a director, also a member of the management committee, elected by a simple majority among the committee members.

2.3 The management committee shall maintain records of ongoing experiments at the EMU and ensure the proper sharing of research infrastructure.

3. ACCESS TO EQUIPMENT

3.1 The EMU must provide physical access conditions with a 24/7 security post.

3.2 To preserve high-cost equipment, any setup performed at the EMU must be accompanied by EMU technicians or members of the project's proposing team.

3.3 The priority in equipment usage shall be given to the project's proposing team, ensuring a minimum of 20% availability for the external scientific and technological community. This percentage must adhere to best sharing practices to avoid compromising research requiring extended measurement periods.

3.4 Any issues related to EMU sharing shall be resolved by the EMU management committee.

4. USER TRAINING

4.1 Optical communication equipment poses health risks to users' eyesight when operated at high power levels. For this reason, new EMU users must undergo safety training for equipment handling.

4.2 Safety training will be provided by laboratory technicians or members of the project's proposing team and their associates.

4.3 Access to the EMU will only be granted upon approval of the training process.

5. OPERATIONAL COST SHARING

5.1 Academic users from the State of São Paulo may use the EMU free of charge, subject to the rules outlined in Item 3.

5.2 Academic users from other states of the federation or abroad may use the EMU free of charge, provided the work is conducted in collaboration with academic groups from the State of São Paulo.

5.3 Industrial users may use the EMU upon financial contribution in the form of access fees or agreements with EMU proposing groups at Unicamp to share operational costs.

5.3.1 The financial contribution may be replaced by other equivalent contributions, such as access to company laboratories or other services, provided they are approved by the management committee.

6. DISCLOSURE OF USAGE RULES

6.1 The EMU usage rules and the composition of the management committee, as well as project scheduling, will be publicly available on the EMU's website.

7. MAINTENANCE PLAN

7.1 Part of the fees collected from the use of EMU for industrial applications must be allocated to the EMU itself to establish a reserve fund for insurance and equipment maintenance. Another portion of the collected fees must be allocated to the School of Electrical and Computer Engineering at Unicamp to cover expenses related to building maintenance, logistics, access control, security, among others.

Resolution FEEC No. 249/2022

The School of Electrical and Computer Engineering, in its 294th Regular Meeting, held on 08/29/2022, approved with 19 favorable votes the opinion issued by Prof. Dr. Fernanda Caseño Trindade Arioli in favor of the EMU-FAPESP Multi-user Equipment Management and Sharing Plan, with Prof. Dr. Darli Augusto de Arruda Mello as the interested party.

Campinas, August 30, 2022

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RESOLUTION CONGREGATION FEEC No. 249/2022

Electronically signed document. Authenticity verification at sigad.unicamp.br/verifica

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