Proposta Grupo de Pesquisa - Institucional
Grupo de Pesquisa em Redes Inteligentes e Sistemas Autônomos - GPRISA

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Agenda

1. Group Description
2. Research Areas
3. Members
4. Projects in progress

Group Description

The research group on Intelligent Networks and Autonomous Systems focuses on the development of new methods and tools for the analysis, design and optimization of communication networks and systems.

Research Areas

- Multi-agent Systems;
- Cloud and Edge Computing;
- Network Slicing Management;
- Multiobjective Optimization;
- Network Simulation and Modeling;

- Future Vertical Industry Applications;
- Intelligent Networks and Network Coding;
- Machine Learning and Intelligence Systems;
- Artificial Intelligence in Zero-Touch Provisioning;
- Resource Orchestration in 5G and Future Communications Networks.

Members

- Joelson Delfino (Dr. / Leader);
- Marco Antonio (Me. / Vice Leader)
- Graça Bressan (Dra./USP);
- Regina Silveria (Dra./USP);
- Douglas Chagas (Me.);

- Lucas Batista (Dr./UFMG);
- Jean Nunes (Me./UFMG);
- Alex Coelho (Me.);
- Leandra Cristina (Me.);

NSSF DAF: Network Slice Selection Function Decision-Aid Framework

- The NSSF DAF consists of a solution that runs in user equipment (e.g. smartphones, vehicles, IoT brokers) in the background and at the edge of the network operator or service provider. The framework has several modules that can be configured according to the context of applications, geographic location, scenarios of mobility, strategies of slices selection, among others. For energy saving, the user equipment only signals its consumption profile or user application preference to the framework host.

NWDAF: Network Data Analytics Function

- The Network Data Analytics Function (NWDAF) implement the analysis functions and the data mining pipeline in 5G Networks and beyond.

Status

- [x] Analysis of existing groups to evidence the non-compatibility of research lines;
- [x] Proposal writing;
- [x] Analysis of proposal by the NDE and obtaining the recommendation;
- [x] Analysis and approval by the Board of Systems Course;
- [ ] Alignment meeting with external researchers;
- [ ] Forwarding to PROPESQ.