



UTFPR
UNIVERSIDADE TECNOLÓGICA FEDERAL DO PARANÁ

UTFPR (Université technologique fédérale du Paraná)

- **2.300 enseignants-chercheurs, 1.000** membres du personnel **administratif** et **30.000 étudiants**.
- **117 programmes** de licence, **36 programmes d'études supérieures**: 6 doctorats et 30 programmes de Master.

- Programme de doctorat: **CPGEI**
 - 47 professeurs chercheurs
 - Plusieurs labo de recherche: **LABSC**

LABSC (Communications Systems Lab)

Wireless Communications -

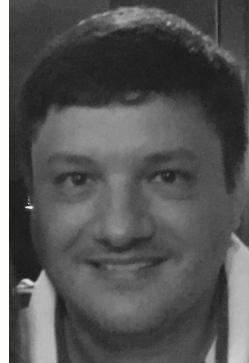
Cooperative communications, network coding, spatial diversity, cognitive radio and source-channel coding.

Wireless Networks - Wireless sensor networks, Internet of Things, routing, channel allocation, delay tolerant networks and vehicular networks.

Wireless networks group



Anelise Munaretto



Mauro Fonseca

PhD students: Priscila Santin, Vinicius Pozzobon Borin, Giovanna Garcia Basilio, Carlos Guerber, Fabio Cesar Schuartz, Marcos Talau

Master students: Thiago Herek, Daniel Alexandre Oleinik, Marcelo Ricardo Leitner, Gabriel De Carvalho Bueno, Wagner Rezende Muniz Barretto

Curitiba



Vila Zumbi



Batel

Open Data

<http://www.curitiba.pr.gov.br/dadosabertos/>

Smart City

- Urban Mobility
- Public Health
- Public Transport Network

Collecting, processing,
analyzing data

- Application of Complex Networks Metrics



Data Correlation
Disease Propagation

Data Science

Routing Protocol in DTNs based on Real Traces to Predicting the Next Hop

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graph TD; A[Routing Protocol in DTNs based on Real Traces to Predicting the Next Hop] --> B[Improvement of the Network Performance]; B --> C([Optimization of Urban Mobility]);
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Improvement of the Network Performance

Optimization of Urban Mobility

FANETS

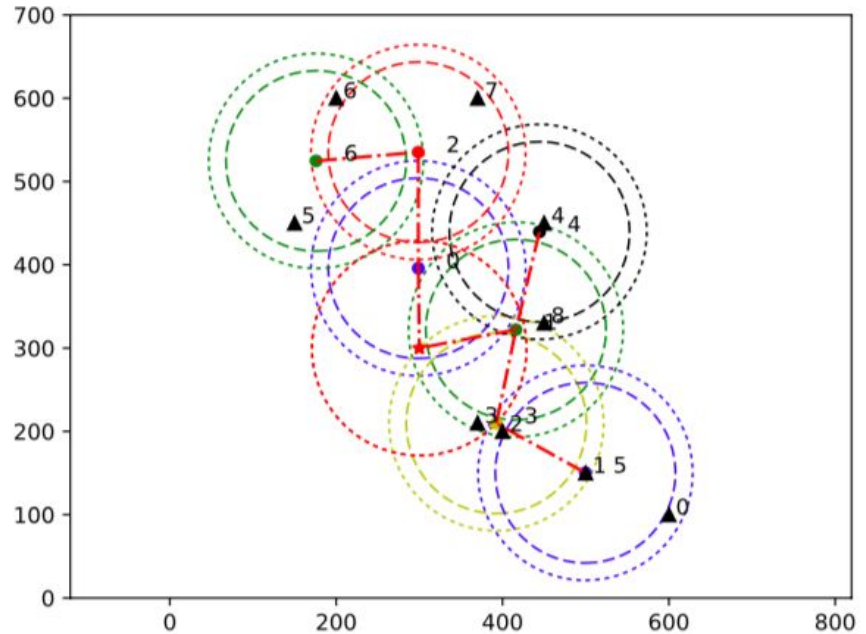
Flying Ad Hoc Networks

A mesh access networks with drones

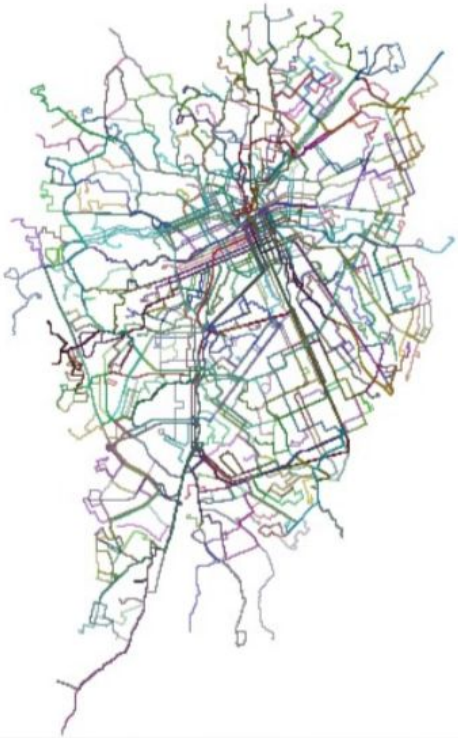
(big events scenarios)

- Mobility management
- Resource management
- Routing
- ...

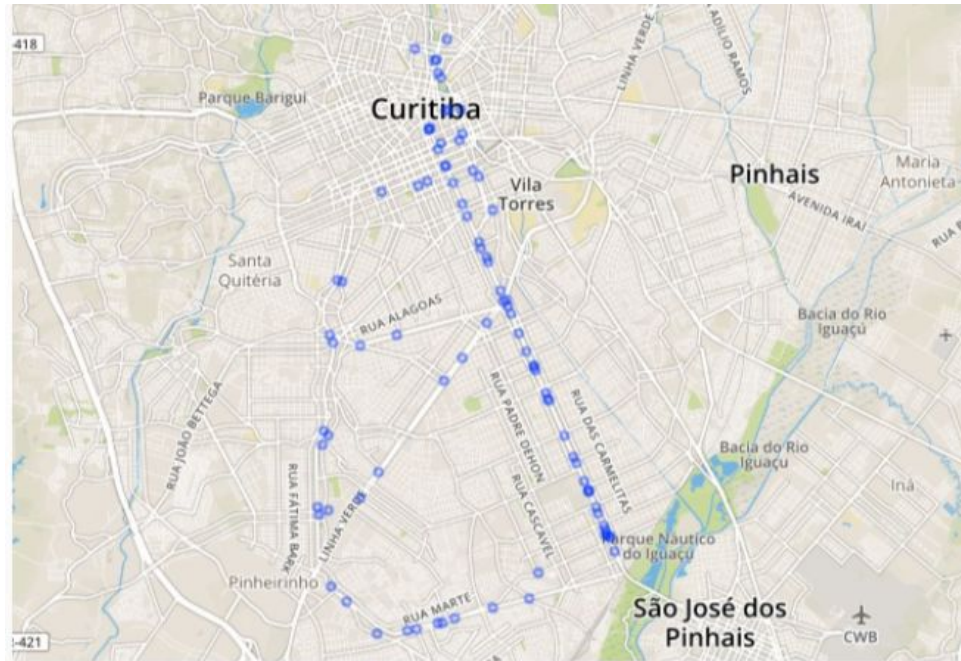
ROCK IN RIO - PARQUE OLÍMPICO



Urban mobility



Urban public transport

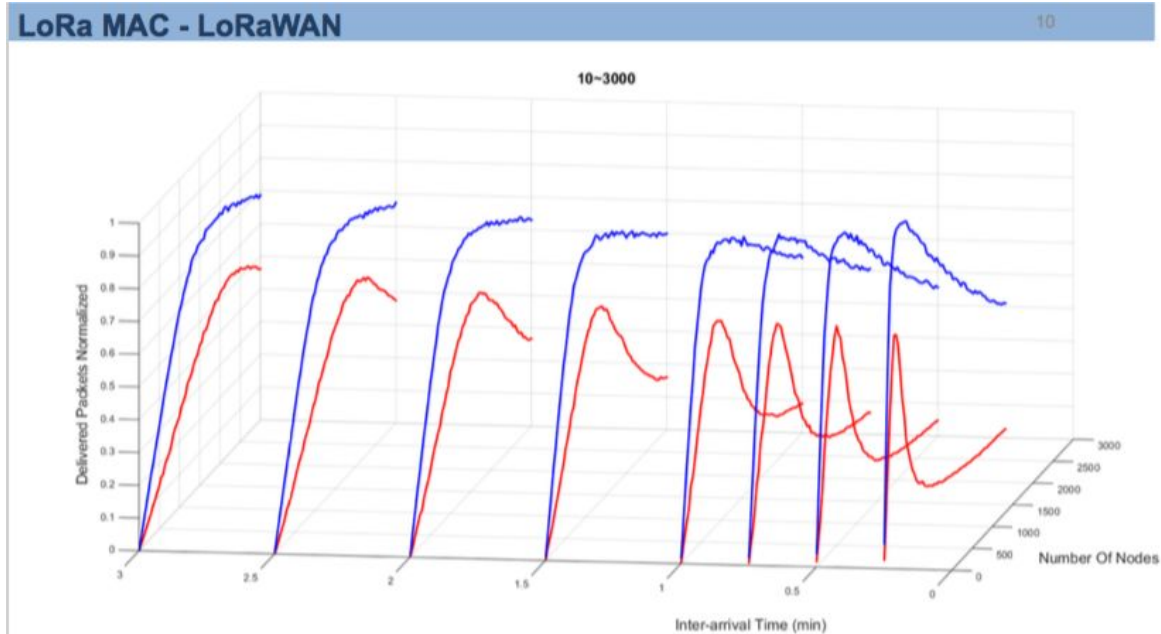


Posição dos ônibus as 18h em 05/04/2017

Linhas: 500, 502, 503, 505, 507, 508 e 602

Internet of things

- Improvement of LORA access
- Evaluation of different access methods: ALOHA, Slot-Aloha, CSMA...



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