

Algorithmic Methods for Mathematical Models (AMMM)

Heuristics Methods

Luis Velasco

(luis.velasco@upc.edu)


Campus Nord D6-107

Lecturer

- **Prof. Luis Velasco**
 - email: luis.velasco@upc.edu.
 - Office: Campus Nord D6-107.


Personal web page


<http://people.ac.upc.edu/lvelasco/>



UNIVERSITAT POLITÈCNICA
DE CATALUNYA
BARCELONATECH

CCABA
Advanced Broadband
Communications Center





Dr. Luis Velasco
Full Professor
UPC - BarcelonaTech

Home

Research

Editorial


Teaching

Bio and Contact

Updated: January 2023


© Copyright 2009-2023
All Rights Reserved.

New Projects




HORIZON-SNS SELF-mAnaged Sustainable high-capacity Optical Networks (SEASON)

SEASON will design and validate a sustainable transport network infrastructure able to support beyond 5G and new emerging services.




HORIZON-SNS Deep Programmability and Secure Distributed Intelligence for Real-Time End-to-End 6G Networks (DESIRE6G)

DESIRE6G will design and develop novel zero-touch control, management, and orchestration platform, with native integration of AI, to support eXtreme URLLC application requirements.



HORIZON-SNS PRogrammable AI-Enabled Deterministic Networking for 6G (PREDICT-6G)


PREDICT-6G will work towards the development of an end-to-end 6G (e2e) solution including architecture and protocols that can guarantee seamless provisioning of services for vertical use cases requiring extremely tight timing and reliability constraints.



HORIZON-CL4 Agile uLtra Low ENerGy secuRe netWoRks (ALLEGRO)

ALLEGRO will design and validate a novel end-to-end sliceable, reliable, and secure architecture for next-generation optical networks, achieving high transmission/switching capacity and secure infrastructures and data transfers.

Lead Guest Editor



Special Issue on *Advances in Multi-Band Optical Networks*

The scope of the special issue includes but is not limited to the following topics:

Research Registries:

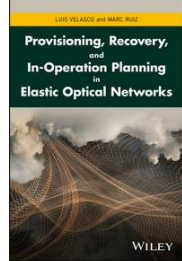
ORCID

RESEARCHERID

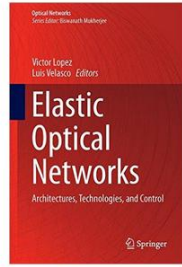
Google scholar

Scopus

Books:






WILEY



Springer

Organization

- Theory
 - Overview
 - Selected papers.
- 3 Lab sessions
 - A report to be delivered after each session
- Repository in google drive (**USE UPC ACCOUNT**)

Name	Date modified	Type
 Labs	22-Mar-25 1:49 PM	File folder
 papers	22-Mar-25 1:49 PM	File folder
 Slides	22-Mar-25 1:49 PM	File folder

Plan (Subject to changes)

Date	Room	Lab	Lecture
25-3-25	A6201		Data generation and heuristics
28-3-25	A6201		Greedy
1-4-25	A5S111	LAB 3 – Data Generation	
11-4-25	A6201		Local Search
22-4-25	A5S111	LAB 4 – Greedy + Local Search	
25-4-25	A6201		GRASP / Intensification
29-4-25	A5S111	LAB 5 – GRASP	
2-5-25	A6201		Genetic Algorithms / Examples

Algorithmic Methods for Mathematical Models (AMMM)

Heuristics Methods

Luis Velasco

(lvelasco @ ac.upc.edu)

Campus Nord D6-107