



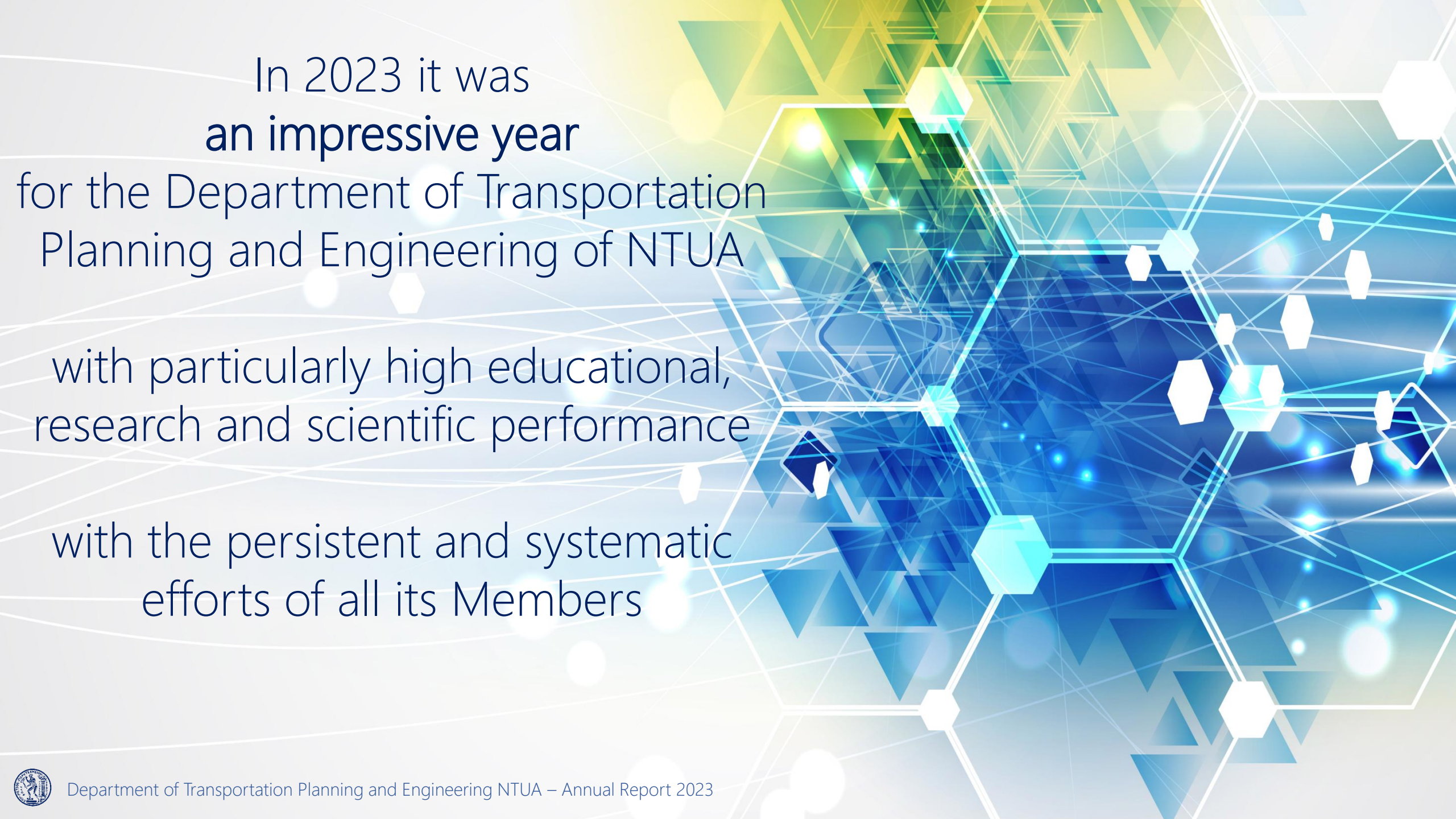
New Year Event at the Department of Transportation Planning and Engineering

Monday 5 February 2024



Annual Report 2023

George Yannis, Director of the Department TPE



In 2023 it was
an impressive year

for the Department of Transportation
Planning and Engineering of NTUA

with particularly high educational,
research and scientific performance

with the persistent and systematic
efforts of all its Members



Department People

A dynamic team of more than 80 renowned scientists

5 Faculty

6 Emeritus Professors

2 Special Lab & Teaching Staff Member

16 Post Doctoral Researchers

33 PhD Candidates

6 Technical and Administrative Staff

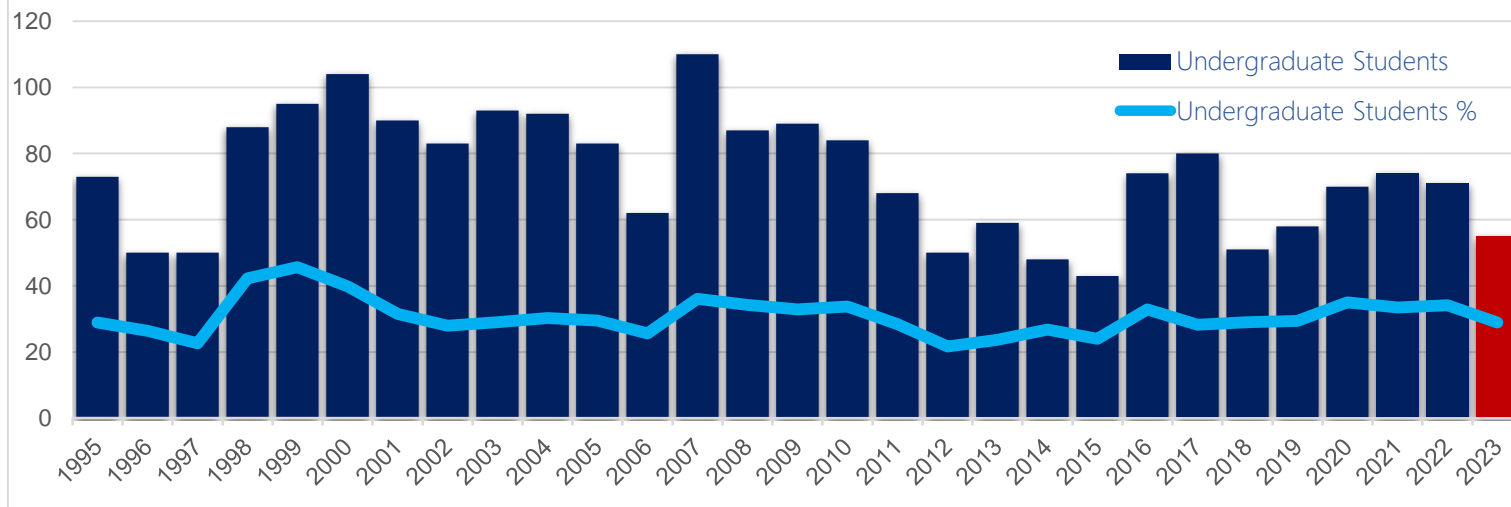
14 Research Assistants



Undergraduate Students

Civil Engineering - Transportation Cycle

Undergraduate Students / Year



Every year, we train more than 1/3 of the total number of students of the School.



Courses

- **22 undergraduate courses** at the School of Civil Engineering (compulsory and elective for **all** civil engineering students, but also especially for students of the Transportation Cycle)
- **3 undergraduate courses** at NTUA Engineering Schools
- **5 postgraduate courses** at NTUA Engineering Schools



Integrated Transport Planning Project

Greek Island Transport Plan Development

Exploitation of real data in a project that covers all transportation engineering disciplines, combining all different transport and development objectives in a **comprehensive and integrated approach**

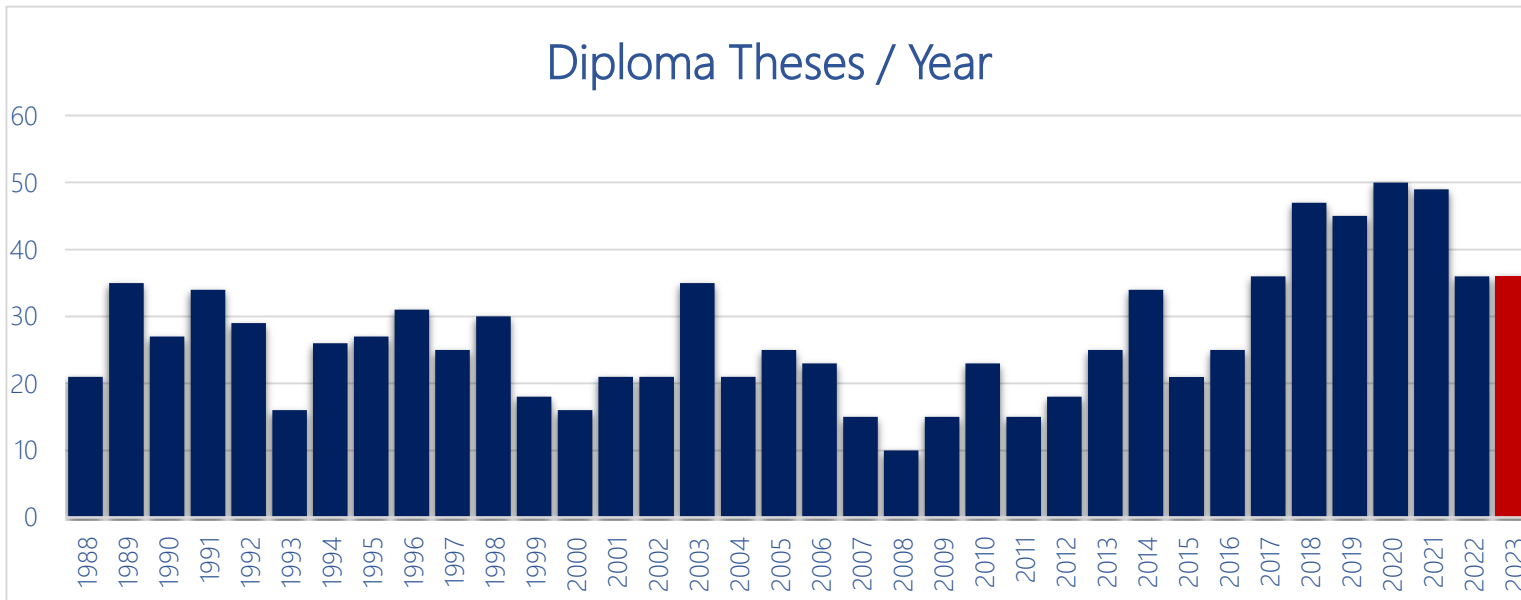
- Full **analysis** of current transportation situation
- **Transportation** (Internal and external transport analysis, Planning passenger / cargo ports and airports)
- **Traffic Engineering** (Traffic Analysis, Identification of high risk sites, Urban Mobility Plan)
- **Road construction** (Configuration of critical junctions, Pavement upgrade program)
- **Technical and economic** analysis of the overall plan of transportation development (cost-benefit)



Diploma Theses 2023

- **36** high level Diploma Theses

Diploma Theses / Year



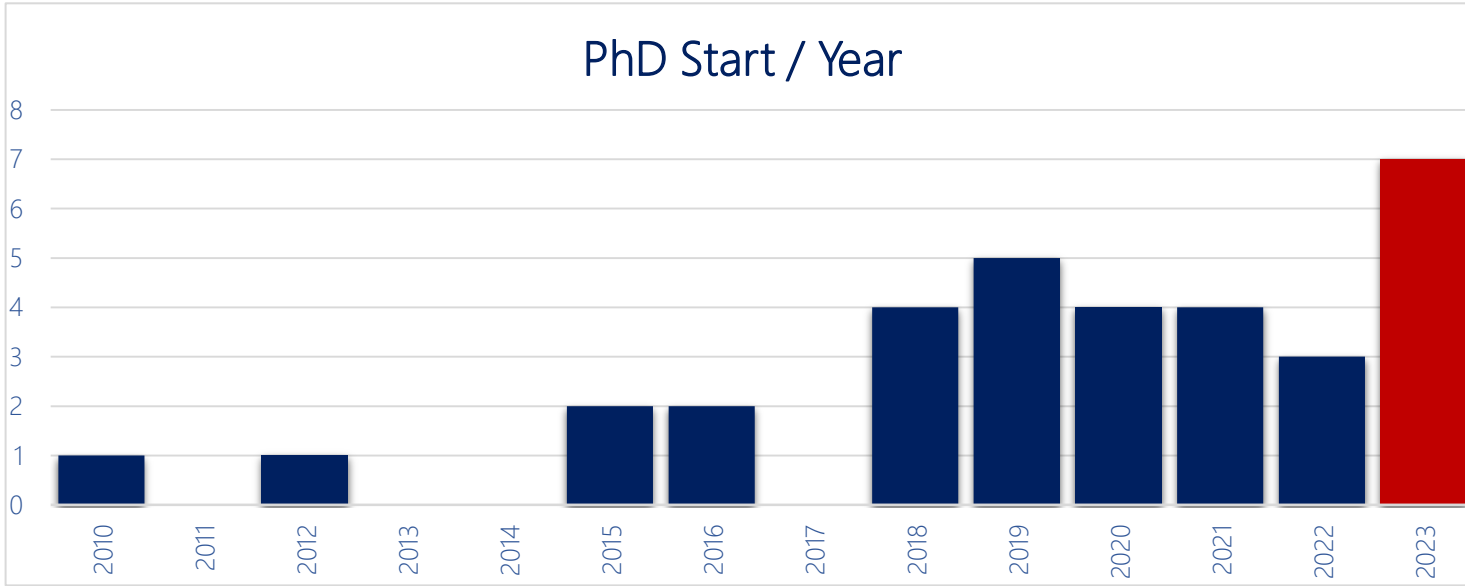
New PhD Theses 2023

- **Maria-Eleni Merakou:** «Electrification in Public Transport and the Impact on Quality and Efficiency»
- **Karouzakis Nikolaos:** «Advanced macroscopic analysis models of international data regarding private equity investment strategy in infrastructure projects»
- **Ioannis Kabouris:** «Synchronization of Public Transport with Micromobility Modes»
- **Dimitrios Rizopoulos:** «Optimal Planning and Operations of Fleets of Electric Vehicles for Passenger Transport»
- **Styliani Roussou:** «Predictive Evaluation of Road Safety in Urban Mobility using telematics data and traffic simulation models»
- **Aikaterini Vakrinou:** «Detection and prediction methods of available parking spaces in urban road networks»
- **Paraskevi Dimitriou:** «Optimal Planning and Operation of Freight Transport in Urban Networks for Fleets of Electric Vehicles»

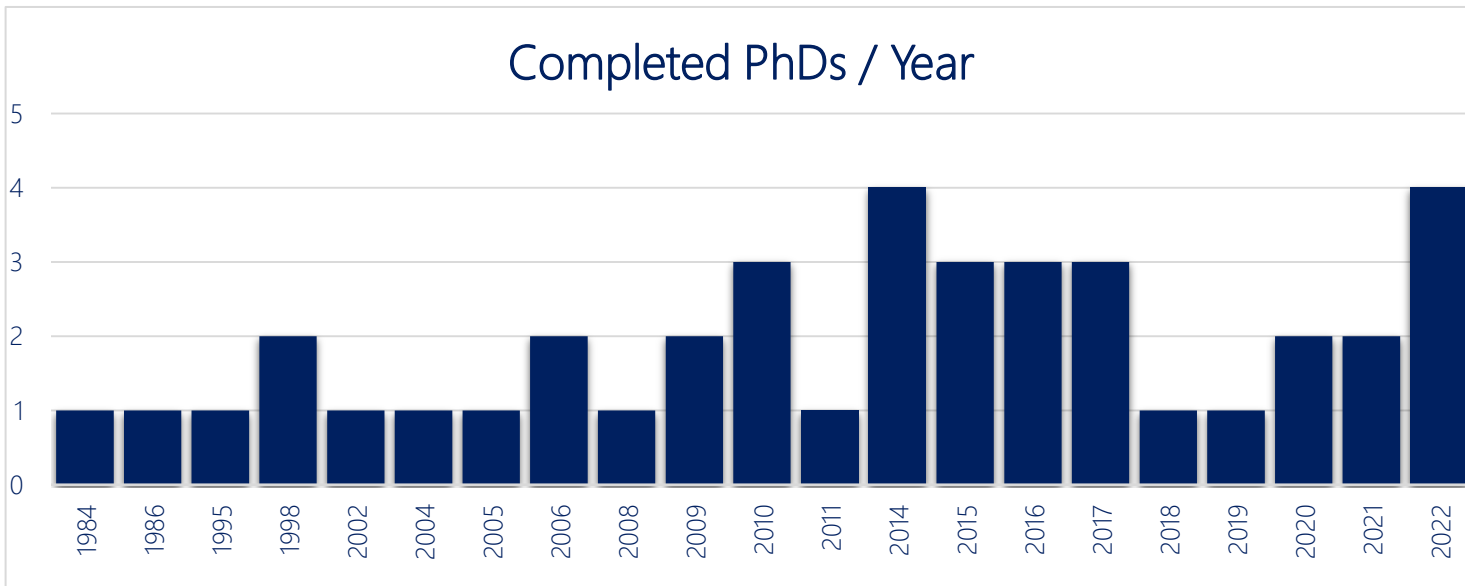


PhD Theses 2023

PhD Start / Year

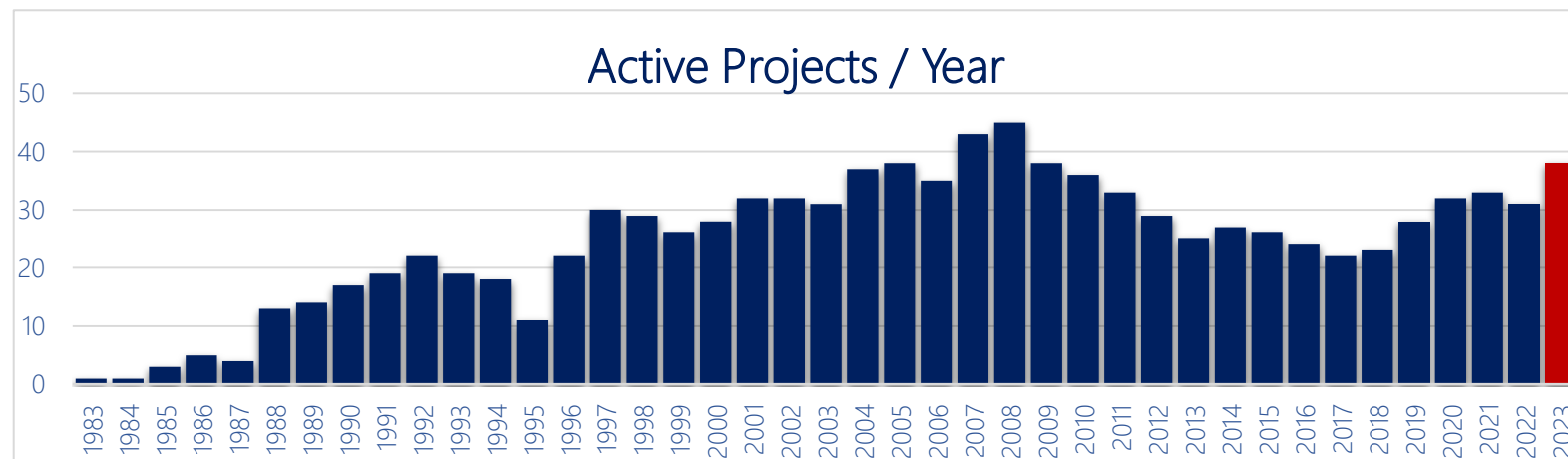
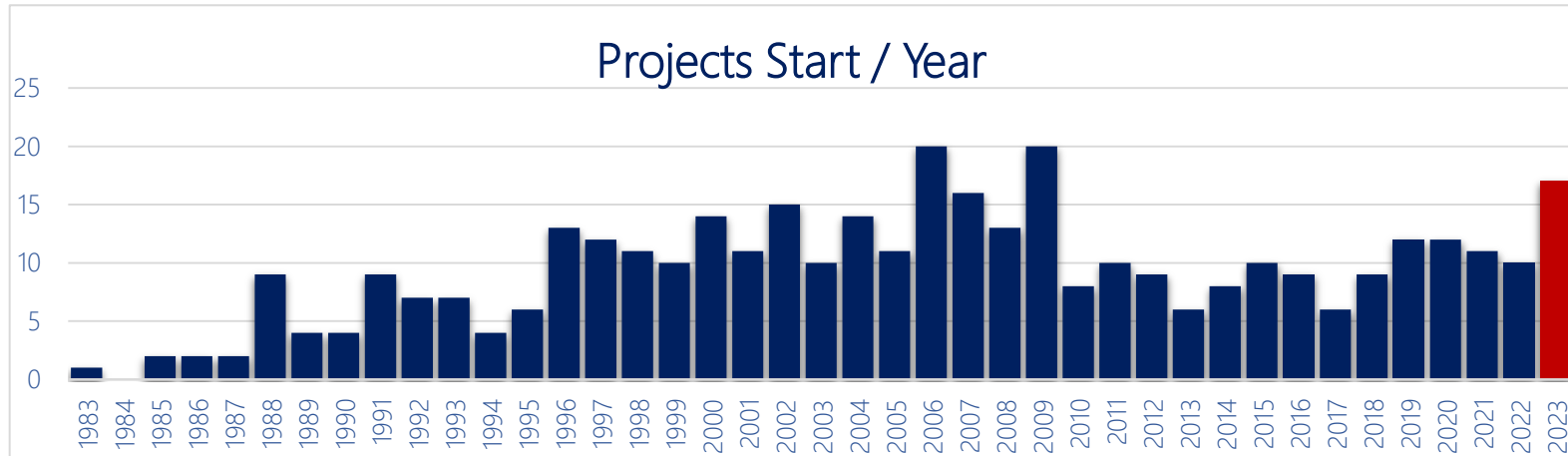


Completed PhDs / Year



Department Research Projects 2023

- 17 new research projects- 38 in progress
- 12 Ongoing European Horizon research projects



Department scientific work

- more than **90 published papers in scientific journals** and more than 80 papers in scientific conference proceedings
- more than **100 presentations** at scientific conferences
- the participation of the members of the Department in more than **80 scientific conferences** in Greece and globally
- more than **4.000 new citations** of the work of the members of the Department



Distinctions of the Department

- The Department of Transportation Planning and Engineering was ranked **4th in Europe** and 26th in the world among all Transport Sectors (EduRank 2023)
 - It was the best performing among all NTUA Departments and all Greek Universities.
- **6 professors of the Department of Transportation Planning and Engineering** are among the top **2%** of the world's top researchers (Stanford 2023)
 - E. Vlachogianni, G. Yannis, I. Golias, +M. Karlaftis, C. Plati, +D. Tsampoulas
- Professor George Yannis is ranked **2nd in Europe** and 9th globally in road safety research (PubMed 2023)



44th NTUA

- EduRank 2023: Ranked 195th (7%) in Europe and 494th (4%) Globally
- QS 2023: Ranked 422nd (30%) Globally
- Research.com: Ranked 44th Globally



2nd Civil Engineering

- EduRank 2023: Ranked 11th in Europe and 31st Globally
- Shanghai 2023: Ranked 2nd in Europe and 5th Globally
- QS 2023: Ranked 21st in Europe and 69th Globally



4th Transportation

- EduRank 2023: Ranked 4th in Europe and 26th Globally
- Shanghai 2023: Ranked 41st in Europe and 168th Globally



2nd Road Safety

- PubMed 2023: Ranked 4th in Europe and 45th Globally
- AAP 2019: Ranked 2nd in Europe and 6th Globally



2nd

Prof. George Yannis

- PubMed 2023: Ranked 2nd in Europe and 9th Globally
- AAP 2019: Ranked 2nd in Europe and 3rd Globally



Distinctions of the Department

- Professor **Andreas Loizos**, delivered an invited distinguished lecture at the International Geophysics Conference on GPR
"Advances and Challenges on GPR in Pavement Infrastructure"
(July 2023)
- Professor **Eleni Vlachogianni** received the 2017-2020 ITSM Outstanding Paper Award. This decision was announced in IEEE - Intelligent Transportation Systems Magazine



New Book

- New book from the global publishing house Springer: **Public Transport Optimization** by NTUA Ass. Prof. Konstantinos Giotisalitis
- comprehensive education for future engineers working on developing models for the design and management of **public transportation** systems
- with **optimization** approaches, meta-heuristic methods, and analysis of computational complexity
- with numerous examples, problems, and solutions that aid in learning **operational research** with applications in public transportation.

Konstantinos Gkiotsalitis

Public Transport Optimization



 Springer



Scientific Committees and Institutions

International Committees

- European Commission
- International Organisations (UNECE, OECD, WHO, World Bank, EIB, CEDR, ERF, IRF, PIARC, UITP, ETSC, ECTRI, WCTR, TRB, IEEE, ITSS)

Greece

- OASA, STASY, Public Works Council, Government Road Safety Committee



Scientific Workshops

- Online Workshop on "Data Requirements for Freight Transport Planning and Operation" (22 February 2023).
in the framework of the research infrastructure "ENIRISST - Intelligent Research Infrastructure in Shipping, Supply Chain and Transport"
- Scientific Workshop on "Telematics and Driver Behaviour" (4 April 2023).
The aim was to highlight the main results and challenges of NTUA research projects on the influence of telematics on driver behaviour



Διαδικτυακή Ημερίδα με θέμα
«Απαιτούμενα στοιχεία για τον
σχεδιασμό και τη λειτουργία
εμπορευματικών μεταφορών»
(22 Φεβρουαρίου 2023)

National Technical University of Athens
Road Safety Observatory www.nrso.ntua.gr

Ημερίδα
«Τηλεματική και
Συμπεριφορά του Οδηγού»

Στο Αμφιθέατρο
Σιδηροδρομικής ΕΜΠ
+ online

Τρίτη 4 Απριλίου 2023
14:30

Logos: i-safemodels, smart, BESMART, EcoDrive, DREAMS, PHOEBE



Scientific Workshops

- Scientific Workshop on "Road Safety Research Challenges" in the framework of the 7th Global Road Safety Week (19 May 2023). The aim was to deepen the understanding of the challenges in road safety, through the key cutting-edge research projects being carried out in the Department
- Scientific Workshop on "Telematics boosting mobility behaviour" (22 November 2023). During the workshop, the new interactive SafeRoadsMap system for safe and green travel in Greece was presented



Scientific Lectures

- Dr. Klaus Bogenberger, Professor, **Technical University of Munich**
«Mobility Coin, a new currency for paying all daily trips within a metropolitan area»
(June 2023)
- Dr. Marko Ševrović, Assistant Professor, **Associate Professor at the Faculty of Transport and Traffic Sciences of the University of Zagreb** *«Road Infrastructure Safety Assessments – the iRAP Methodology»*
(June 2023)



Website

- Continuous updating (18 posts within 2023)
- Full lists of Members, 1305 Diploma Theses, 40+33 PhD Theses, 380 Research Projects, Lectures
- Reproduction of posts on social media
- High Visitation (100.000+ pageviews annually)



Welcome

The Mission of the Department of Transportation Planning and Engineering is to educate scientists engineers and promote science in the field of transportation planning and engineering. High scientific standards and performance are key objectives in all education and research activities of the Department of Transportation Planning and Engineering.









The Vision of the Department of Transportation Planning and Engineering is a future with highly efficient, green and safe transport systems in Greece, in Europe and globally, through high level scientific research and technological development supporting evidence based decision making in all aspects of all transport modes and types.

The Scope of the Department of Transportation Planning and Engineering comprises all transport modes (road, rail, water, air, combined), all transport types (people and goods, urban and interurban, national and international, terminals) and all phases of transportation projects (planning, design, tendering, construction, delivery for operation, operation, management, maintenance).

The Department of Transportation Planning and Engineering lies on more than 70 highly qualified scientists (including 5 Faculty members), is composed by three Laboratories: Pavement Engineering, Railways and Transport & Traffic Engineering, offers 20 undergraduate courses at the School of Civil Engineering and contributes to another 9 undergraduate and postgraduate courses at NTUA Engineering Schools and in the last 40 years has produced highly innovative research through more than 1.289 Diploma Theses, 67 PhD Theses and within more than 380 National, European and International Research Projects, which led to more than 1.400 publications in international scientific journals and conference proceedings widely cited worldwide.

Comprehensive presentation of the academic, scientific and research activities of the Department: [📄](#) [📺](#)

Latest News

-  06/02/2024
Ecole des Ponts ParisTech Master programmes for NTUA students, February 2024
-  06/02/2024
New year event at the Department of Transportation Planning and Engineering, February 2024
-  02/02/2024
NTUA / Marie Curie - 4 New PhD Vacancies on AI for Road Safety, February 2024
-  15/01/2024
NTUA at the 103rd TRB Annual Meeting, Washington DC, January 2024
-  07/12/2023
NTUA Professors among the top 2% researchers in the world, November 2023
-  23/11/2023
NTUA - Telematics boosting mobility behaviour Workshop, Athens, November 2023
-  07/11/2023
Diploma theses exams, October 2023
-  22/08/2023
Prof. Eleni Vlahogianni receives the 2017-2020 ITSM Outstanding Research Paper High Commendation Award, August 2023

Transport Tools

-  Department of Transportation Planning and Engineering
-  Department of Transportation Planning and Engineering
-  NTUA Road Safety Observatory
www.nrso.ntua.gr
-  Apostolos Chr. Yotis Award ετι «Απόστολου Χρ. Πωτή»
-  Transport Conferences
-  Scholarships for Transport Studies



Digital Governance

- Cloud with all files online
 - Fully tidy & easy to use archive
 - Standardized coding of all files
- Standard operating procedures
 - Systematic role allocation
 - Continuous service line **1285**
- Optimal Infrastructure Management

DT

*With system and perseverance
against all odds*

Τομέας	Administration	A
Γενική Συνέλευση	GeneralAssembly	dta
Πρωτόκολλο	Registry-In/Out	dti/o
Οικονομικά	Budget	dta
Ενημέρωση DT Control	DT-Control	-
Πρότυπα έγγραφα	Templates	dta
Αλληλογραφία	-	-
Εκλογές Διευθυντών Τομέα/ Εργαστηρί	Elections	dta
Φόρμες, Αιτήσεις (εκτός Τομέα)	Forms	
Τεχνικό και Διοικητικό Προσωπικό	Staff	dta

Εκπαίδευση	Education	E
Πρόγραμμα μαθημάτων	CoursesProgram	dte
Πρόγραμμα εξεταστικής - Επιτηρήσεις	ExamProgram	dte
Συγγράμματα	TeachingMaterial	dte
Διανομή σημειώσεων	-	-
Προετοιμασία εξετάσεων	-	-
Καταχώρηση βαθμολογιών	-	-
Διπλωματικές Εργασίες	Diploma Theses	dtd
Απαλλαγές	StudentExemptions	dte

Έρευνα	Research & Postgrad	R
Ερευνητικά Έργα	ResearchProjects	dtr
Υποψήφιοι Διδάκτορες	PhdCandidates	dtp
Επικουρικά	PhD-Assistance	dtp
Υποτροφίες ΕΛΚΕ	ELKE-Scholarships	dtp
Πανεπιστημιακοί Υπότροφοι	PhD-Teaching	dtp

ΔΕΠ	Faculty	F
Εξειδίκευση καθηκόντων	FacultyTasks	dtf
Ορισμός Διδασκόντων	TeachingAssignments	dtf
Εξέλιξη μελών ΔΕΠ	FacultyElections	dtf
Μητρώο εκλεκτορικών σωμάτων	DisciplinesList	dtf
ΕΔΙΠ	TeachingAssistants	dtf
Άλλα έγγραφα μελών ΔΕΠ	FacultyOther	dtf
Άδειες Απουσίας μελών ΔΕΠ	AbsenceForm	dtf

Υποδομές	Infrastructure	I
Συντήρηση	-	dti
Βλάβες	InfraFailures	dti
Καταστροφές οργάνων	InfraEquipment	dti

Επικοινωνία	Communication	C
Δικτυακός Τόπος Τομέα	DTWeb	dtc
Παρουσίαση Τομέα	DT-Profile	dtc
Παρουσίαση Εργαστηρίων	-	dtc
Παρουσίαση Μελών Τομέα	-	dtc
Εκδηλώσεις	Events	dtc
Πολυμέσα	Media	dtc
Ανακοινώσεις	Announcements	dtc



Strong Presence in Society

Integrated Communication Policy

- 9 radio interviews
- 12 television interviews
- 15 interviews in the electronic media
- 48 social media posts
- 21 republished posts from scientific organisations and institutions
- Campaign to promote 30km/h speed limit in cities worldwide, running 30 Marathons in 30 months
- 330.000+ pageviews per year
- Network with thousands of contacts in Greece & internationally



We start in 2024
with the **best prospects**

with a Plan
with new challenges
with research projects
with our students
with the best Team
and with extra surprises 😊





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