

UNIVERSITA' DEGLI STUDI DI GENOVA

AREA INTERNAZIONALIZZAZIONE, RICERCA E TERZA MISSIONE
SERVIZIO RICERCA

D.R. n. 4414

IL RETTORE

- Visto il Decreto Rettorale n. 3728 del 14/09/2022, con il quale è stato indetto il concorso, per titoli e colloquio, per il conferimento di n. 1 borsa di ricerca post- laurea di tipo starting della durata di 4 mesi, dell'importo di € 5.416,00 (cinquemilaquattrocentosedici/00), per lo svolgimento di una ricerca sul tema: "Definizione e sviluppo di algoritmi per l'analisi e il controllo del traffico in sistemi di mobilità urbana" presso il DIME dell'Università degli Studi di Genova;
- Visto il Decreto Rettorale n. 4195 del 05/10/2022 con il quale è stata costituita la Commissione giudicatrice per il conferimento della suddetta borsa di ricerca;
- Visto il verbale della Commissione giudicatrice del concorso in parola, riunitasi in data 11/10/2022;
- Constatata la regolarità della procedura seguita;

DECRETA

Art. 1

Sono approvati gli atti del concorso di cui in premessa e la seguente graduatoria di merito:

1. Dott.re Muhammad Tabish Bilal punti 81/100

Sotto condizione dell'accertamento dei requisiti di cui al bando, è dichiarato vincitore del concorso in parola il Dott.re Muhammad Tabish Bilal

Genova, 17.10.2022

IL RETTORE




Muhammad Tabish Bilal

Nationality:  Date of birth:

 Email address:

 Email address:

 Whatsapp Messenger:

 LinkedIn:

 Address:

 Address:

ABOUT ME

Doctoral Researcher at Italian Center of Excellence for Logistics, Transportation and Infrastructure, Università Degli Studi di Genova Italy in the lab of Transportation and logistics. Scholar of Msc Transportation Systems Engineering.

Core projects and interest in Transport Modelling with Autonomous Vehicles and Micro-Mobility Transportation Planning, Sustainable Urban Mobility, and Agent-Based Travel Demand Modelling.

EDUCATION AND TRAINING

Ph.D. Logistics and Transportation

University degli studi di Genova [31/10/2019 – Current]

Address: Via Montellegro 1, 16145 Genova (Italy)

Visiting PhD Researcher

Centre d'Innovació del Transport - CENIT [31/01/2022 – 31/07/2022]

Address: Carrer Jordi Girona, Plaça Telecom, 1-3, C3, 08034 Barcelona (Spain)

<https://cenit.es/about/meet-our-team/muhammad-tabish/>

MSc TRANSPORTATION ENGINEERING

Budapest University of Technology and Economics, Budapest, Hungary. [12/11/2017 – 10/07/2019]

Address: Budapest (Hungary)

Field(s) of study: Transportation Systems Engineering

Thesis: Travel time reliability in public transport route assignment

Major task was to find the parameters of travel time reliability that can affect the perceived journey times of public transport and their effect on inclusion into assignment model using PTV Visum. The model developed for this research was of the city of Karlsruhe, Germany

BSc TRANSPORTATION ENGINEERING

University of Engineering & Technology [30/09/2012 – 14/06/2016]

Address: Lahore (Pakistan)

Thesis: Evaluation of locally available bitumen & aggregate used in hot mix asphalt production in Pakistan

Major task was to characterize bitumen and aggregate for usage in hot mix asphalt for better long term functional properties.

PUBLICATIONS

M.T. Bilal, D. Giglio, S. Sarwar and S. Sauri, "Assessment of Dynamic Vulnerability of Public Transport Bus Network on the Integration of Micro-Mobility Services"

[2022]

Awaiting decision from the "2023 TRANSPORTATION RESEARCH BOARD ANNUAL MEETING"

M.T. Bilal and D. Giglio, "Analysing inequity in land use and transportation models by genetic algorithm for realistically quantified penetration rate of autonomous vehicles"

[2022]

Awaiting decision from the Journal "TRANSPORT RESEARCH INTERDISCIPLINARY PERSPECTIVES"

M.T. Bilal and D. Giglio, "Evaluation of macroscopic fundamental diagram characteristics for a quantified penetration rate of autonomous vehicles"

[2022]

Provisionally Accepted for publication in the journal "EUROPEAN TRANSPORT RESEARCH REVIEW"

M. T. Bilal and D. Giglio, "Realization of the penetration rate for autonomous vehicles in multi-vehicle assignment models," 2021, Transportation Research Procedia

[2021]

<https://www.sciencedirect.com/science/article/pii/S2352146522001491>

M. T. Bilal and D. Giglio, "Evaluation of macroscopic fundamental diagram characteristics for a quantified penetration rate of autonomous vehicles," 2021 European Transport Conference Online.

[2021]

<https://aetransport.org/past-etc-papers/conference-papers-2021?abstractId=7364&state=b>

European Transport Conference 2021 - Peer review for European Transport Research Review journal

M. T. Bilal and D. Giglio, "Inequity evaluation for land use and transportation model on introduction of autonomous vehicles," 2021 7th International Conference on Models and Technologies for Intelligent Transportation Systems (MT-ITS), 2021, pp. 1-7, doi: 10.1109/MT-ITS49943.2021.9529278.

[2021]

<https://ieeexplore.ieee.org/document/9529278>

M. T. Bilal, S. Sarwar and D. Giglio, "Optimization of public transport route assignment via travel time reliability," 2021 7th International Conference on Models and Technologies for Intelligent Transportation Systems (MT-ITS), 2021, pp. 1-6, doi: 10.1109/MT-ITS49943.2021.9529303.

[2021]

<https://ieeexplore.ieee.org/document/9529303>

S. Sarwar, T. Sipos, M. T. Bilal, and B. Verebélyi, "Exploring Correlation between Highway Intersection Capacity and Traffic Parameters", Period. Polytech. Transp. Eng., vol. 49, no. 4, pp. 344-353, 2021.

[2019]

<https://pp.bme.hu/tr/article/view/15809>

REVIEWER ACTIVITIES

Reviewer for multiple conferences and a Journal.

[31/12/2019 – Current]

1. Reviewer at International Journal of Transportation Engineering and Technology.
2. Reviewer for The Fifth International Conference on Social Science, Public Health and Education (SSPHE 2022).
3. Reviewer for the 24th IEEE Intelligent Transportation Systems Conference (ITSC 2021).
4. Reviewer for the International Conference on Transport & Health (ICTH 2022).
5. Reviewer for the 7th International IEEE Conference on Models and Technologies for Intelligent Transportation Systems (2021).

WORK EXPERIENCE

Teaching Support Assistant

DIME, Università degli Studi di Genova [01/09/2022 – Current]

City: Genova

Country: Italy

Providing teaching support for the subject of "SMART & SAFE LOGISTICS" (cod. 90941) for the class of "Master's in SAFETY ENGINEERING for TRANSPORT, LOGISTICS, AND PRODUCTION".

Subject Tutor

Università Degli Studi di Genova [20/10/2021 – 30/07/2022]

City: Genova

Country: Italy

Tutor for the subject of "Analisi e Verifica Strutturale" (Structural analysis and verification) for the class of "Bachelor's of Science in Civil Engineering".

RESEARCH OFFICER TRANSPORTATION

THE URBAN SECTOR PLANNING & MANAGEMENT UNIT [31/10/2016 – 21/08/2017]

City: Lahore

Country: Pakistan

Provided technical research services for UNDP project of Pakistan Sustainable Transportation Project (PAKSTRAN).

Services provided to the transport team for devising PUNJAB ROAD POLICY under the project of PUNJAB SPATIAL STRATEGY 2020.

Facilitated workshops and seminars training professionals and engineers from transport sector all around the country together with writing and editing the proposal for collaborative research initiatives to different organizations.

Formulated first Punjab Public Transport Manual. Writing research papers for the organization on topics of sustainable and safe urban mobility by implementation of ITS and mass transit systems.

Developed PUBLIC TRANSPORT ACCESSIBILITY INDEX for Punjab using GIS and PTV Visum software together with junction and public transportation optimization.

Performed feasibility studies, surveys and supervision of staff in various parking design and planning projects

JUNIOR ESTIMATION ENGINEER

Construction Solutions: Total Bid Data New york [31/05/2016 – 30/10/2016]

City: Lahore

Country: Pakistan

Worked on U.S based projects for building and highway construction. Performed intense estimations for the construction and maintenance works using Plan Swift v 9.0 facilitating bidding for the tender of projects. Take offs for estimation sheets using project plans and detailed drawings.
Reviewing and correcting the quantity take offs before putting into bidding process.

SUPERVISING ENGINEER

UNIVERSITY OF ENGINEERING & TECHNOLOGY, LAHORE [14/01/2016 – 14/06/2016]

City: Lahore

Country: Pakistan

Worked on **Army Ammunition Depot construction project, Pattoki** by providing supervision services to the survey team and carrying out Soil investigation and detailed chemical analysis of the in-situ soil.

INTERNEE TRANSPORTATION ENGINEER

TRAFFIC ENGINEERING & TRANSPORT PLANNING AGENCY (TEPA), LAHORE DEVELOPMENT AUTHORITY [30/06/2015 – 30/07/2015]

City: Lahore

Country: Pakistan

Served as an Internee Engineer by performing analysis of different intersections of Lahore city on **HCS, SIDRA** and **Synchro 8**.

COURSES, TRAINING AND WORKSHOPS

Trainings

Ø MATLAB onramp, online at Mathworks.org, 2020

Ø Electric Cars: Introduction, TU DelftX, Course by TU Delft on EdX platform, (11/2019 – 11/2020)

Ø Electric cars: Policy, TU DelftX, course by TU Delft on EdX platform, (11/2019 – 11/2020)

Ø Data Science: R basics, HarvardX, Course from Harvard University through EdX platform (01/2020-06/2020)

Ø Data Science: Inference and Modeling, HarvardX, Course from Harvard University through EdX platform, (01/2020-06/2020)

Ø Introduction to Machine Learning, online course at Mathworks.org, 2019.

Ø PTV Talks Webinar:

1. Modelling ride sharing systems in PTV Visum.
2. Activity based modeling with PTV Visum.
3. Autonomous Vehicles Features in PTV Vissim from the CoEXist Project
4. Traffic Optimization for Signalized Corridors (TOSCo) Development and Analysis of Vehicle Systems with VISSIM.
5. Modeling Public Transport: an IT-TRANS wrap-up, 2020.

Ø Operating the sidewalk and curb (kerb) of the future Confirmation, webinar under the banner of project titled Harmonized Mobility

Ø Mobility Boot camp, cycling innovation contest under the banner of Genoa Metropolitan City Authority, 2019.

Ø TRANSCAD Training at The Urban Unit, 2017.

Ø Punjab Road Policy, stake-holders workshop at The Urban Unit, 2017.

Ø Signal Timing Optimization and Hands on training of **SYNCHRO 8.0** by DTEM, UET Lahore, 2015.

Testing at **Road Research & Material Testing Institute**, Lahore

DIGITAL SKILLS

My Digital Skills

PTV VISUM / PTV Vissim / MATLAB / R / ArcGis 10.8 / Good knowledge of Latex / IELTS 7 / Plan Swift (Estimation Software) / Microsoft Office

LANGUAGE SKILLS

Mother tongue(s): **Urdu**

Other language(s):

English

LISTENING C1 READING C1 WRITING C1

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

Italian

LISTENING A2 READING A2 WRITING A2

SPOKEN PRODUCTION A2 SPOKEN INTERACTION A2

Hungarian

LISTENING A1 READING A1 WRITING A1

SPOKEN PRODUCTION A1 SPOKEN INTERACTION A1