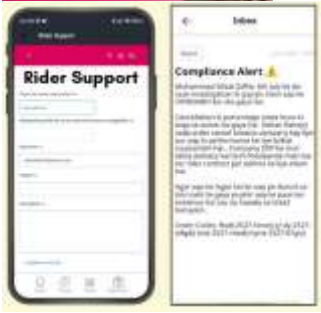
Final Year Design Project Showcase
Batch-2022
Year 2026

Department: Architecture and Planning Programme: Development Studies	
1	**Project Title** Rise of Digital Platforms And Its Impact on Labor Force: A Comparative Study of Algorithm Based vs Conventional Food Delivery Riders in Karachi
2	**Project/Idea** This project examines the impact of digital food delivery platforms on employment by comparing Algorithm-Based riders (Foodpanda) with Conventional restaurant-employed riders in Karachi. Using a mixed-method research approach, the study evaluates differences in working conditions, earnings, health, autonomy, occupational risks, and algorithmic control. Based on the findings, the project proposes a human-centered delivery ecosystem that improves rider welfare while maintaining platform efficiency.
3	**Process** The FYP began by observing the rapid rise of food delivery riders, especially after COVID-19. After reviewing around 60 research papers, we identified a gap in research on the physical and mental health of delivery riders in Karachi, Pakistan. We therefore compared algorithm-based and employee-based riders using ethnographic, qualitative, and quantitative methods. The collected data was then analyzed to develop our final project.
4	**Outcome** The study found that algorithm-based delivery systems generate employment opportunities but expose riders to unstable income, long working hours, digital surveillance, financial insecurity, health risks, and limited autonomy. Conventional employment offers greater income stability and workplace support. The project proposes rider-owned welfare infrastructure and governance models that improve rider well-being without compromising operational efficiency.
5	**Evidence (Theoretical Basis)** The research is grounded in **Gilles Deleuze's Societies of Control Theory**, which explains how modern digital systems continuously regulate workers through algorithms, GPS tracking, ratings, and performance monitoring. Data collected through surveys, interviews, ethnographic observation, and participant experience strongly supports the theory by demonstrating that algorithmic management transfers operational risks and responsibilities from platforms to workers. The study also incorporates literature from the International Labour Organization (ILO) and Sustainable Development Goals (SDGs) to evaluate decent work and labor conditions.
6	**Competitive Advantage or Unique Selling Proposition** (Cost Reduction, Process improvement, Attainment of any SDG (Sustainable Development Goal), increase of

	market share or capturing new market or having superior performance over a competitor. In summary, any striking aspect of the project that compels the industry to invest in FYP or purchase it. Some detailed description is required in terms of how, why when what. You can select one or more from the following dropdown and delete the rest of them). Please keep relevant options, delete the rest of them, and correct the sequence
a	**Attainment of any SDG** (e.g. How it is achieved and why it is necessary for the region) The project contributes primarily to: • **SDG 3:** Good Health and Well-being • **SDG 8:** Decent Work and Economic Growth • **SDG 10:** Reduced Inequalities • **SDG 11:** Sustainable Cities and Communities The proposed rider welfare model improves occupational safety, income security, social protection, and sustainable urban employment
d	**Process Improvement which Leads to Superior Product or Cost Reduction, Efficiency Improvement of the Whole Process** (e.g. What is the issue is current process and what improvement you suggests) The project introduces three innovative solutions: • **Food Hub:** Food Hub is a A Human-Centric Food Delivery Platform designed to mitigate the issues occurring fron the algorithmic management of food delivery riders. • **Rider Welfare Cooperative:** Democratic rider organization offering insurance, emergency financial assistance, legal aid, collective bargaining, and transparent governance. • **OSDQ Framework:** A balanced operational performance model integrating delivery efficiency with rider welfare indicators instead of relying solely on algorithmic performance metrics. These improvements reduce rider turnover, improve service quality, enhance platform sustainability, and strengthen public trust.
g	**Any Other Aspect** Unlike previous studies focusing only on surveys, this project integrates **ethnographic participant observation**, allowing researchers to work as delivery riders and obtain firsthand insights into hidden algorithmic control mechanisms. This significantly improves the credibility and practical relevance of the research findings.
7	**Target Market** (Industries, Groups, Individuals, Families, Students, etc) Please provide some detail about the end-user of the product, process, or service The proposed solutions are intended for: • Digital food delivery platforms (e.g., Foodpanda) • Restaurants employing delivery riders • Government and labor regulatory authorities

	• Urban planning and municipal organizations • Rider welfare organizations and NGOs • Corporate CSR initiatives • Delivery riders working in Pakistan's gig economy These stakeholders can utilize the findings to improve labor policies, rider welfare, operational sustainability, and platform governance.	
8	**Team Members** (Names along with email address)	DS-22008 Hammad Shahid (hammadshahid1718@gmail.com) DS-22013 Maryam Imran (maryamm.imraan@gmail.com) DS-22018 Amna Kamran (amnakamrands341@gmail.com) DS-22019 Safa Irfan Shaikh (ssafa9537@gmail.com) DS-22031 Umer Ahmed Khan (umerahmedkhan031@gmail.com) DS-22040 Hussain Ahmed (hussainahmedds341@gmail.com)
10	**Supervisor Name** (along with email address)	Dr. Saeed Uddin Ahmed (architectsaeed@yahoo.com)
11	**Video (If any)**	Documentary Link

Pictures (to be pasted below)