



Sustainable Development Goals



Industry, Innovation and Infrastructure

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



A comprehensive and sustainable approach to manufacturing, alongside innovation and infrastructure, can unleash dynamic and competitive economic forces that generate job opportunities and income. It plays a key role in introducing and advancing new technologies, facilitating international trade, and enabling the efficient use of resources. However, the world still has a long way to go to fully realize these potentials. In particular, the least developed countries need to accelerate the development of their manufacturing sectors if they wish to achieve the 2030 goals and increase investment in scientific research and innovation.

College of Technical Engineering

Professor Dr. Abdulkhaliq Malallah, Head of the Surveying Engineering Technologies Department at the Technical Engineering College, Alnoor University, chaired the Master's thesis defense committee of student Naba'a Hazim Hassan for her thesis entitled *"The Effect of Short-Term, Long-Term, and Extended Aging on Asphalt Mixtures Containing Al-Buldan Waste as Filler and ABS and SBS Polymers."* The thesis was submitted to the Department of Civil Engineering (Roads and Transportation specialization) at the College of Engineering, University of Mosul. The defense was held in the presence of the committee members and a number of faculty members and researchers. The thesis examined the impact of different types of aging on improving the properties of asphalt mixtures using modern additive materials, highlighting their importance in enhancing performance and extending service life. At the conclusion of the defense, the committee commended the scientific effort invested in the thesis and the results achieved, and decided to approve the thesis after fulfilling the required scientific revisions.

