

2021 Technical Excellence Award

Dr. Ahmed Ghazy, P.Eng.



Dr. Ahmed Ghazy is the Research and Standards Engineer in Asset Pavement Management with the City of Winnipeg Public Works. In this role, he ensures that the City of Winnipeg Standard Construction Specifications are consistent with the latest international standards and are up to date to reflect new practices, technologies, and products. Dr. Ghazy is also a collaborator with the Department of Civil Engineering at the University of Manitoba as an adjunct professor. He initiates, leads, and undertakes research projects on state of the art technologies related to roadway construction and pavement design.

Dr. Ghazy has many technical accomplishments in the areas of pavement design, road construction materials, and construction practices and specifications. His achievements include creating an updated set of granular base and sub-base specifications, new specifications for the use of geosynthetics in unbound pavement layers, research into soil improvement using cement modification and nanoparticles, and the development of energy-efficient strategies to alleviate the impact of low temperature on concrete. Dr. Ghazy created updated asphalt specifications to include new technologies such as warm mix asphalt and fibre additives, introducing the superpave mix design method for asphalt mixes, publishing a pavement design guideline, initiating a project to calibrate materials used for base material and in concrete and asphalt pavements, evaluating the performance of fibre reinforced concrete for bridges, developing innovative nano-modified concrete mix for rehabilitating concrete pavement, and introduced the new portland-limestone cement containing up to 15% limestone for concrete pavement. The success of such smart and sustainable materials can introduce new mixtures for pavement with projected extended service lives and less life cycle costs.

Dr. Ghazy's work in updating construction specifications and pavement design represents significant improvements to the City of Winnipeg's specifications. This also applies to all the other cities that implement these specifications, leading to longer lasting, quality pavements that contribute to traffic safety, efficient roads, and the well-being of the travelling public.

In addition to preparing written construction specifications, details, guidelines, and technical reports, Dr. Ghazy has published the findings of his extensive research in 35 journal and conference publications. Owing to the quality of his work, Dr. Ghazy has received many awards, recognitions, grants, and fellowships. In September 2020, Dr. Ghazy was awarded the 2020 Allan Widger Consulting Corporation Grant for Young Geotechnical Engineers in Transportation by the Transportation Association of Canada. Two of his published technical papers were also shortlisted for the Giatec Award for Best Paper.

Dr. Ghazy is a director of the Manitoba Chapter of the American Concrete Institute, which is dedicated to disseminating knowledge, technical information, and best practices of concrete supply and placement to the concrete community of Manitoba. As University of Manitoba adjunct professor, Dr. Ghazy sits on a number of PhD advisory committees and is an active participant on multiple professional associations and committees.

In recognition of engineering research excellence and commitment to improving the standards for road and pavement construction, Engineers Geoscientists Manitoba is pleased to award the 2021 Technical Excellence Award to Dr. Ahmed Ghazy, P.Eng.