

# Demonstration of Air Quality Information Tools

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Are you a beginner to emissions and air quality modelling? Are you interested in brushing up some fundamental linkages between emissions, pollution, and impact analysis?

If yes, then this workshop is for you.

Our goal for the day is to eliminate the fear of numbers and surveys and to demystify models. The lecture materials and tools are designed to provide a foundational understanding of the key equations used in building an emissions inventory, collecting the data needed for models, improving inputs through surveys, and utilizing data from monitoring stations and models. You will also learn how to calculate health impacts and get an exposure to advanced models and how to complicate calculations. The course is conducted in an open-discussion format using MS-excel based tools. All the prep tools, reference material, and presentations are available @ <https://urbanemissions.info/tools>

This is designed as a one-day event where we cover the following topics from 9AM to 5PM (half-day only, optional). Sessions will be laced with quizzes, surveys, hands-on time, open discussions, and breaks.

Session 1	<b>Fundamentals of integrated air quality management</b> <ul style="list-style-type: none"><li>• What is the role of information we collect? Bringing together data</li><li>• Demonstration of multiple scenario players, with links to source apportionment results</li><li>• Demonstration of SIM-air toolbox</li></ul>
Session 2	<b>Fundamentals of air quality information</b> <ul style="list-style-type: none"><li>• Quiz</li><li>• Demonstration of AQI calculators</li><li>• Demonstration of Health impacts calculators</li><li>• Open discussions</li></ul>
Session 3	<b>Fundamentals on air pollution modelling</b> Demonstration of methods with example calculators <ul style="list-style-type: none"><li>• Interpreting meteorological data</li><li>• Box-models (forward and inverse modelling)</li><li>• Input data resources</li><li>• Linking concentrations to health impact analysis</li><li>• Advanced systems (depending on participants background)</li></ul>
Session 4	<b>Fundamentals on emissions modelling</b> Demonstration of methods with example calculators <ul style="list-style-type: none"><li>• Transport and non-transport calculators</li><li>• Input data resources (including emission factors)</li><li>• Gridding procedures</li><li>• Fuel station survey (FuSS) and extensions</li><li>• Emission scenario players</li></ul>