

1. Record Nr.	UNINA9910962049803321
Titolo	Environmental modeling with GIS // Lubos Matejicek, editor
Pubbl/distr/stampa	New York, : Nova Science Publishers, c2010
ISBN	1-61761-913-2
Edizione	[1st ed.]
Descrizione fisica	1 online resource (208 p.)
Collana	Environmental science, engineering and technology series
Altri autori (Persone)	MatejicekLubos
Disciplina	363.700285
Soggetti	Environmental sciences - Data processing Geographic information systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	<p>""ENVIRONMENTAL MODELINGWITH GIS""; ""ENVIRONMENTAL MODELINGWITH GIS""; ""CONTENTS""; ""PREFACE""; ""SPATIO-TEMPORAL MODELING OF RADIONUCLIDEDEPOSITION""; ""ABSTRACT""; ""1. INTRODUCTION""; ""2. DISTRIBUTION OF RADIONUCLIDES IN THE IRISH SEA""; ""3. MODELING OF RADIONUCLIDE DEPOSITION""; ""4. SPATIO-TEMPORAL MODELING""; ""5. SPATIO-TEMPORAL MODELING WITH GIS""; ""6. CONCLUSION""; ""ACKNOWLEDGMENT""; ""REFERENCES""; ""DYNAMIC MODELING OF SURFACE WATERPOLLUTION CAUSED BY THE INDUSTRIALPOLLUTANT RELEASE""; ""ABSTRACT""; ""1. INTRODUCTION""; ""2. DYNAMIC MODELING IN THE GIS ENVIRONMENT"" ""3. MODELING OF THE POLLUTANT TRANSPORT""""4. SIMULATION OF THE DYNAMIC MODEL IN GIS""; ""5. DATA PROCESSING AND EXPLORATORY ANALYSIS""; ""6. SPATIO-TEMPORAL SIMULATION WITH GIS""; ""7. CONCLUSION""; ""ACKNOWLEDGMENT""; ""REFERENCES""; ""MODELING OF WATER POLLUTION IN RIVER BASINSWITH GIS""; ""ABSTRACT""; ""1. INTRODUCTION""; ""2. METHODS""; ""2.1 INTEGRATION STRATEGIES OF DYNAMIC MODELING AND GIS""; ""2.2 INTEGRATION OF SPATIAL DATA FROM AERIAL AND SATELLITEIMAGES""; ""2.3 INTEGRATION OF SPATIAL DATA FROM GPS""; ""2.4 INTEGRATION OF 3D SPATIAL DATA"" ""2.5 INTEGRATION OF ALL THE SPATIAL COMPONENTS IN THEFRAMEWORK OF GIS""""3. A CASE STUDY OF BASIN IN THE NEIGHBORHOOD OF PRAHAFOCUSED ON NITRATES""; ""3.1 MODEL DESCRIPTION OF WATER POLLUTION""; ""3.2 SPECIFICATION OF INPUT</p>

DATA"; "3.3 DESCRIPTION OF THE DYNAMIC MODEL"; "3.4 INTEGRATION OF THE DYNAMIC MODEL WITH GIS"; "3.5 SPREADSHEET TOOLS AND GIS"; "Figure 13. Calculation of the dynamic model in the environment of a spreadsheet and data connection among the spreadsheet, the GIS or the external relational spatial database. Compartment models described by ordinary differential equations can be solved with macros, which implement algorithms for numerical calculation (Euler, Runge-Kutta). In spite of a lower efficiency of calculation, a wide use of the spreadsheet programs, built-in"; "3.6 ARCGIS DEVELOPMENTS TOOLS"; "3.7 INDIVIDUAL PROGRAMS DEVELOPED WITH GIS PROGRAMMING LIBRARIES"; "4. CONCLUSIONS"; "ACKNOWLEDGMENTS"; "REFERENCES"; "SPATIO-TEMPORAL MODELING OF THE DUST EMISSIONS FROM AN OPENCAST COAL MINING AREA"; "ABSTRACT"; "1. INTRODUCTION"; "2. EMISSION SOURCES"; "3. REMOTE SENSING, GPS AND GIS"; "4. DISPERSION MODELING IN THE FRAMEWORK OF GIS"; "5. VISUALIZATION OF SPATIO-TEMPORAL DATA"; "6. A CASE STUDY OF THE SELECTED OPENCAST MINING AREA"; "6.1. Mapping of the Dust Emission Sources"; "6.2. Sharing Data between Dispersion Modeling Tools and GIS"; "6.3. Visualization of Spatio Temporal Data in GIS"; "7. CONCLUSION"; "ACKNOWLEDGMENT"; "REFERENCES"; "SPATIAL MODELING AND OPTIMIZATION OF MUNICIPAL SOLID WASTE COLLECTION IN URBAN REGIONS"

## Sommario/riassunto

This text provides leading-edge research on environmental modelling with GPS. It is demonstrated by a number of environmental case studies that, in addition to environmental modelling, include the latest research on remote sensing, GPS, and database management.