1. Record Nr. UNINA9910465400603321

Titolo	Environmental modeling with GIS [[electronic resource] /] / Lubos Matejicek, editor
Pubbl/distr/stampa	New York, : Nova Science Publishers, c2010
ISBN	1-61761-913-2
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 Electronic books.
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	""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 DATA""; ""3.3 DESCRIPTION OF THE DYNAMIC MODEL""; ""3.4 INTEGRATION OF THE DYNAMIC MODEL WITH GIS""
""3.5 SPREADSHEET TOOLS AND GISFigure 13. Calculation of the dynamic model in the environment of a spreadsheet and data connectionamong the spreadsheet, the GIS or the external relational spatial database.Compartment models described by ordinary differential equations can be solved withmacros, which implement algorithms for numerical calculation (Eulcr, Runge-Kutta). In spiteof 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 PROGRAMMINGLIBRARIES""; ""4. CONCLUSIONS""
""ACKNOWLEDGMENTS""""""REFERENCES""; ""SPATIO-TEMPORAL MODELINGOF THE DUST EMISSIONS FROMAN 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 OFMUNICIPAL SOLID WASTE COLLECTION INURBAN REGIONS""