TECHNOLOGY ENGINEER

DISTINGUISHING FEATURES OF THE CLASS: An incumbent in this class is responsible for professional level application development, modification and maintenance in preparing and developing a geographic information system in the Ulster County Department of Information Services. Responsibilities include, computer mapping, database development, programming applications and support systems for use on the central Geographic Information System (GIS) database. Incumbents are expected to exercise independent judgment, as the position is responsible for acting in a lead capacity in the coordination and implementation of project initiatives. Work is performed under the general supervision of a higher-level technology engineer or team leader. Supervision may be exercised over subordinate personnel. Does related work as required.

TYPICAL WORK ACTIVITIES: The typical work activities listed below, while providing representative examples of the variety of work assignments in the title, do not describe any individual position. Incumbents in this title may perform some or all of the following, as well as other related activities not described.

Participates in the development and implementation of a Geographic Information System in the Ulster County Department of Information Services for use by County departments and local municipalities;

Participates in the modification and maintenance of a Geographic Information System in the Ulster County Department of Information Services for use by County departments and local municipalities;

Provides updates to existing GIS database;

Prepares maps and attribute data for inclusion in GIS database;

Receives and responds to requests for GIS support by providing technical assistance to users and helping in defining the practical aspects of GIS applications;

Participates in developing GIS applications for system users by performing research into trends in the field, and by assisting in the technical aspects of program development;

Reviews existing systems and revises programming language to enable integration with the central Geographic Information System database;

Meets with municipal officials and other agencies to review their existing systems with a view towards integrating them with the County's central GIS;

Participates in GIS and planning studies and prepares reports and memoranda including statistical analyses, maps, graphs, tables, etc., for oral and/or written presentation;

Attends conferences, meetings and seminars as assigned.

FULL PERFORMANCE KNOWLEDGES, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS: Good Knowledge of the principles and techniques of Geographic Information Systems as applicable to County, municipal and regional government; good knowledge of GIS software such as ARC/INFO, ArcView and related major extensions including Spatial Analyst and 3D Analyst, etc.; good knowledge of automated mapping standards; working knowledge of ESRI Internet mapping products, working knowledge of other CAD and GIS software packages especially AutoCAD; skill in programming using AML, Avenue, Visual Basic for Applications/Vbscript, Java, HTML and XML; ability to prepare and analyze data in a wide variety of digital formats; ability to effectively communicate, both orally and in writing; resourcefulness; tact; good judgment; accuracy; thoroughness; initiative; physical condition commensurate with the demands of the position.

MINIMUM QUALIFICATIONS: Either:

A. Graduation from a regionally accredited or New York State registered college or university with a Master's Degree in Planning, Geography, Geographic Information Systems or Management Information Systems or a related field; **OR**

B. Graduation from a regionally accredited or New York State registered college or university with a Bachelor's Degree in Planning, Geography, Geographic Information Systems or Management Information Systems or a related field and **two (2) years** of experience developing and maintaining GIS programs in a governmental agency or private enterprise; **OR**

C. Graduation from a regionally accredited or New York State registered college or university with an Associates Degree in Planning, Geography, Geographic Information Systems or Management Information Systems or a related field and **four (4) years** of experience developing and maintaining GIS programs in a governmental agency or private enterprise; **OR**

D. An equivalent combination or training and experience within the limits defined by A, B and C above.

ULSTER COUNTY   Adopted: June 21, 2001
7227 TECH ENG   Revised: June 13, 2008
Classification: Competitive
Grade: 18
Union: CSEA