⚡EUCI COURSE

GEOGRAPHIC INFORMATION SYSTEMS (GIS) FUNDAMENTALS FOR UTILITIES

April 6-7, 2020
Sheraton Gunter Hotel
San Antonio, TX

RELATED EVENT:

GEOGRAPHIC INFORMATION SYSTEMS (GIS) DATA COLLECTION AND INTEGRATION
April 7-8, 2020 | San Antonio, TX

> *"Great course, realistic timeframe, polite and courteous staff. Highly recommend."*
>
> Technology Consultant, Accenture

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EUCI is authorized by IACET to offer 1.1 CEUs for the course

This course is approved for GISP points through the GIS Certification Institute

OVERVIEW

Geographic information systems (GIS) is becoming a well-known technology that is used every day, not just by all types of organizations all over the world, but also by people. GIS is everywhere: on your phone, on your car, on your watch and even on your GoPro. It is used to visualize any type of features, find patterns, analyze change, create models, tell stories, solve and predict problems, and turn raw data into actionable information and decision making. This course introduces GIS concepts and related tools used by different industries as part of their business models and workflows. This course will show you how to modify and implement other industries applications to the electric utility, and where to find tools as well as other resources.

You will also learn about development, applications, GPS, remote sensing technologies like LiDAR and how to use them to target renewable energy options, integration between systems like SCADA, trends like UAV's which are tightly related to geographic information systems, and even enterprise deployments. We will look into the future as well as evaluate new software versions for tools such as the Utility Network tool and its impact on an electric network. Real world use cases will be part of our interactive discussions.

The course is ideal for any professionals from any industry who would like to start learning about GIS, but also for the expert who would like to take GIS to the next level or an organization that wants to implement GIS.

LEARNING OUTCOMES

- Familiarize with GIS fundamentals
- Discuss how to deploy and implement a GIS system for any scale organization
- Discuss real use cases
    - o   United Power, XCEL Energy
    - o   Distribution vs. transmission
    - o   Streetlights repair and maintenance
- Review new technologies
- Identify positive and negative factors
- Review GIS industries and its applications to the electric utility
- Review ata integration and security
- Assess data collection and management
- Identify data sources and types
- Review what resources you have available
- Identify and apply GIS in the five usage patterns areas: data management, planning and analysis, field mobility, operational awareness, and stakeholder engagement

WHO SHOULD ATTEND

- Any professional in any expertise level in the industry who would like to start learning about GIS
- For experts who want to take GIS to the next level
- A professional at a utility who wants their company to implement GIS

> **"For anyone beginning with a GIS infrastructure, I would recommend this training to gather a better basic knowledge of what you are working with daily."**
>
> IT Manager, Twin County EPA

AGENDA

MONDAY, APRIL 6, 2020

8:00 – 8:30 am	**Registration and Continental Breakfast**
8:30 am – 5:00 pm	**Course Timing**
12:00 – 1:00 pm	**Group Luncheon**

- Why GIS?
- Introduction and Basic Concepts
  - Data types
  - Projections
  - Data accuracy
  - Scales
  - GIS systems architecture and components
  - Geospatial data modeling
  - Survey vs. mapping
  - Cartography
- GIS Applications and Uses as a Tool
  - Open GIS vs. Product GIS
  - Geospatial analysis
  - GPS
  - Programming vs. scripting
- Aerial Imagery and Remote Sensing
  - Definition and concepts
  - Aerial imagery as a base and analysis map
  - LiDAR applications
  - Google Maps
  - Georeferencing
  - Conversions
- Desktop vs. Web vs. Mobile and Other Platforms
  - Desktop software
  - 3rd party vendors
  - ESRI AGOL & Portal environments
  - Web app builder, dashboards, analytics, story maps
- GIS in the Electric Utility Industry
  - Networks and tracing
  - OMS
  - Data integration and modeling
- Data Entry, Integration, Collection, Quality, and Maintenance
  - Asset management
  - Fleet management
  - Field inventory
  - OMS
  - SCADA
  - Customer care
  - AMI
- Data Standardization, Sharing, and Security
  - Metadata
  - Data classification
  - Data models
  - Data and network security

AGENDA

TUESDAY, APRIL 7, 2020

8:00 – 8:30 am   **Continental Breakfast**

8:30 am – 12:00 pm   **Course Timing**

- Enterprise Deployments and Implementations
  - RDMS
  - Cost
  - Staff structure
  - Internal vs. consultant implementations
  - Environments (production vs. testing vs. development vs. replication/disaster recovery)
  - Investor Owned Utilities vs. Coops vs. Municipalities
  - System migrations
  - User training and customer engagement
  - GIS system administration
- Future Trends
  - UAV
  - Open GIS
  - Utility network
  - Mobile GIS
  - The internet of things
  - Crowd sourcing and online resources
  - GeoEvents
  - AMI

OVERVIEW

Geographic information systems (GIS) is becoming a well-known technology that is used every day, not just by all types of organizations all over the world, but also by people. The web has changed GIS, making it everywhere and readily available 24/7/365. With the web and mobility advances, GIS has become more powerful and an indispensable tool for all types of users. Today, we are not expecting to just collect and display basic data in our mobile devices, but analysis and tools as well that help us to make decisions on-the-go.

This course will focus on data collection, applications, related tools, data management and data visualization. Real world use cases, as well as your specific needs, will be part of our interactive discussions. The course will focus on ESRI web and mobile applications such as Survey123, Collector, Explorer, Operations Dashboards, Insights, and 3D, as well as ArcGIS Portal and AGOL. You will learn tips and tricks from experience and successful projects.

The course is ideal for any professionals from any industry who are interested in all aspects of spatial data collection, data sharing, data management, and data analytics; from the new professional who would like to start learning about how to implement and use GIS in the field, to the expert who would like to take field GIS and data management to the next level, and even the professional that wants to refresh their knowledge.

LEARNING OUTCOMES

- Familiarize with mobile and web GIS
- Discuss how to deploy and implement a mobile GIS for any scale organization
- Discuss real user cases, including yours
- Review new technologies
- Identify positive and negative factors
- Review GIS industries and its applications to the electric utility
- Review data integration and Security
- Assess data collection and management
- Review data accuracy
- Discuss tips and tricks
- Identify what resources you have available

WHO SHOULD ATTEND

- Any professional in any expertise level in the industry who would like to start learning about GIS
- For experts who want to take GIS to the next level
- A professional at a utility who wants their company to implement GIS

> *"Diego was funny and engaging and informative. Great course, realistic timeframe, polite and courteous staff. Highly recommend."*
>
> Technology Consultant, Accenture

AGENDA

TUESDAY, APRIL 7, 2020

12:30 – 1:00 pm   **Registration**

1:00 – 5:00 pm   **Course Timing**

- Why GIS
- Why Data Collection and Field Collection
- GIS Systems Architecture and Components
- GIS Project Management
- Data Standardization, Sharing, and Security
  - Metadata
  - Data classification
  - Data models
  - Data and network security
- Types of Data Collection
  - Inventory
  - General
  - Inspections
- Data Collection Accuracy
  - GIS and GPS/GNSS
- Data Collection Quality
  - Collection
  - Management
  - Quality control

WEDNESDAY, APRIL 8, 2020

8:00 – 8:30 am   **Continental Breakfast**

8:30 am – 5:00 pm   **Course Timing**

12:00 – 1:00 pm   **Group Luncheon**

- Hardware
- Software
  - Web
  - Desktop
- Connected and Disconnected Editing
- User Training and Customer Engagement
- GIS Database Design and Standards
  - Relationships
- Field and User Considerations
- Taking the Data to the Field and Bringing the Data to the Office
- Preparing for Field Day
- Results Visualization
  - Dashboards
  - Story maps
  - Analytics and insights
  - 3D visualizations

AGENDA

WEDNESDAY, APRIL 8, 2020 (CONTINUED)

Cartographic Products
- Web GIS
  - o   Basics
  - o   Cloud GIS
    - -   ESRI AGOL and PORTAL
    - -   Management and maintenance
  - o   Services overview
  - o   Web app templates and AppBuilder
  - o   Spatial analysis online
  - o   Web services
  - o   Map services
  - o   Geoprocessing services
  - o   Big data
- Hands-On User Case

COURSE INSTRUCTOR

Diego Portillo
GISP | GIS, Denver Water

Diego Portillo is a GIS professional with over 20 years of experience in the geospatial field related to different industries—from community development, to planning, consulting, water and electric utilities. His background includes data entry to data management, project management, and implementation. His accomplishments have been recognized by several industries, including the Special Achievement in GIS at the ESRI International Conference in 2006 for his GIS Enterprise Implementation at United Power (Brighton, CO).

"
"I thought Diego knew his stuff and presented it in an understandable way, especially for a learner like me!"

Software Developer, IQGeo

"
"Diego's experience with different employers gives a great variety of perspectives."

GIS Coordinator,
Associated Electric Cooperative

EVENT LOCATION

A room block has been reserved at the **Sheraton Gunter Hotel,** 205 East Houston Street, San Antonio, Texas 78205, for the nights of April 5-6, 2020. Room rates are $199 plus applicable tax. Call **1-210-227-3241** for reservations and mention the EUCI event to get the group rate. The cutoff date to receive the group rate is March 5, 2020 but as there are a limited number of rooms available at this rate, the room block may close sooner. ***Please make your reservations early.***

IACET CREDITS

EUCI has been accredited as an Authorized Provider by the International Association for Continuing Education and Training (IACET). In obtaining this accreditation, EUCI has demonstrated that it complies with the ANSI/IACET Standard which is recognized internationally as a standard of good practice. As a result of their Authorized Provider status, EUCI is authorized to offer IACET CEUs for its programs that qualify under the ANSI/IACET Standard.

EUCI is authorized by IACET to offer 1.2 CEUs for the course.

GISP POINTS

This course is approved for GISP points through the GIS Certification Institute

REQUIREMENTS FOR SUCCESSFUL COMPLETION

Participants must sign in/out each day and be in attendance for the entirety of the course to be eligible for continuing education credit.

INSTRUCTIONAL METHODS

PowerPoint presentations, interactive group exercise, and group discussion will be used during this course.

REGISTER 3, SEND THE 4TH FREE

Any organization wishing to send multiple attendees to this course may send 1 FREE for every 3 delegates registered. Please note that all registrations must be made at the same time to qualify.

To Register Click Here, or

Mail Directly To:
PMA Conference Management
PO Box 2303
Falls Church VA 22042
201 871 0474
Fax 253 663 7224
register@pmaconference.com

○ **BUNDLE PRICE** GEOGRAPHIC INFORMATION SYSTEMS (GIS) FUNDAMENTALS FOR UTILITIES <u>AND</u> GEOGRAPHIC INFORMATION SYSTEMS (GIS) DATA COLLECTION AND INTEGRATION COURSES: April 6-8, 2020: US $2395
Early bird on or before March 20, 2020: US $2195

○ GEOGRAPHIC INFORMATION SYSTEMS (GIS) FUNDA-MENTALS FOR UTILITIES COURSE <u>ONLY</u>
April 6-7, 2020: US $1395
Early bird on or before March 20, 2020: US $1195

○ GEOGRAPHIC INFORMATION SYSTEMS (GIS) DATA COLLECTION AND INTEGRATION COURSE <u>ONLY</u>
April 7-8, 2020: US $1395
Early bird on or before March 20, 2020: US $1195

EVENT LOCATION

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ENERG⚡ZE WEEKLY

Energize Weekly is EUCI's free weekly newsletter, delivered to your inbox every Wednesday. We provide you with the latest industry news as well as in-depth analysis from our own team of experts. Subscribers also receive free downloadable presentations from our past events.

○ **Sign me up for Energize Weekly**

Print Name	Job Title

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What name do you prefer on your name badge?

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List any dietary or accessibility needs here

CREDIT CARD INFORMATION

Name on Card	Billing Address
Account Number	Billing City	Billing State
Exp. Date	Security Code (last 3 digits on the back of Visa and MC or 4 digits on front of AmEx)	Billing Zip Code/Postal Code

OR Enclosed is a check for $ _____ to cover _____ registrations.

Substitutions & Cancellations
Your registration may be transferred to a member of your organization up to 24 hours in advance of the event. Cancellations must be received on or before March 6, 20200 in order to be refunded and will be subject to a US $195.00 processing fee per registrant. No refunds will be made after this date. Cancellations received after this date will create a credit of the tuition (less processing fee) good toward any other EUCI event. This credit will be good for six months from the cancellation date. In the event of non-attendance, all registration fees will be forfeited. In case of course cancellation, EUCI's liability is limited to refund of the event registration fee only. For more information regarding administrative policies, such as complaints and refunds, please contact our offices.
EUCI reserves the right to alter this program without prior notice.

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