

MICRO CREDENTIAL COURSE DETAILS

1. Name of Series

Stackable Credential (Upskills / Reskills / Development)

2. Name of Course

Applications of Data Analytics in the tourism industry

3. Synopsis of Course

This course focuses on analyzing data in a strategic matter to facilitate problem solving and decision making in the tourism industry. Topics include identifying relevant applications of data analytics in web and social media, as well as in marketing and travel operations. Various models and approaches will be presented and its application in the real tourism context. Real case studies will also be presented and discussed.

4. For Whom?

- Hospitality and tourism-related Entrepreneurs
- Working professionals
- Teaching Staff
- Students
- General public

5. Course Outcomes

1. Travel demand modeling – Concepts and implementation
 - To understand the concept of travel demand modeling.
 - To learn the various approaches to modeling travel.
2. Travel demand analytics
 - To conceptualize and implanting of travel demand modeling using big data.
 - To be able to predict travel demand using big data.
 - To learn new developments and analytical approaches to travel demand modeling with behavioral big data.
3. Analytics in everyday life and travel
 - To understand the process of emotional and cognitive responses of places.

- To identify emerging measurement techniques to examine the role of human senses in touristic experiences.
4. Tourism geo-analytics
 - To learn geospatial analytics using travel reservation data.
 5. Web and social media analytics – Concepts and methods
 - To understand the recent developments in utilizing user-generated content on the Internet.
 - To learn the different approaches to tackle the problem of sentiment analysis and current applications in the field of tourism.
 6. Case studies in web and media analytics
 - To learn the applications of data analytics in a real situation.

6. Delivery Mode

Online Lecture, Online Workshop with discussions, real-life cases and tutorials.

Assessments via quizzes and final project/assignment.

7. Duration of Course

4 weeks' course

10 hours total SLT per week

Cumulative learning of 40 hours for the total course

8. Level of Course & Micro credential Credit Value

Nil/ Certificate Level (one credit)

9. Course Outline

Module 1: Travel demand modeling – Concepts and implementation

- The role of travel demand analysis in tourism.
- Monitoring and evaluating change in travel demand.
- Factors underlying travel choices and travel demand.
- Mainstream travel modeling (four-stage, elasticity-based).
- Disaggregate choice modeling.

Module 2: Travel demand analytics

- How to use big data in tourism forecasting.

- Selecting and shrinking big data.
- A Framework for predicting tourism demand.
- Heterogeneity in Tourists
- Choice set
- Information hierarchy

Module 3: Analytics in everyday life and travel

- Senses and Tourism Research
- Framework of touristic experience creation
- Psychophysiological foundations of senses
- Senses and related research
- Capturing traveler's senses: Challenges and possible solutions

Module 4: Tourism geo-analytics

- Working with park & protected land (PPL) reservation data sets
- Preprocessing and enriching PPL reservation data
- Enrichment from visitor origin geography
- Enrichment of PPL destinations attributes
- Data reduction and geographic data mining
- Utilizing information generated from geographic data mining
- Geo-visualization for pattern interpretation of PPL demand populations
- Geo-visualization for pattern interpretation of PPL destinations

Module 5: Web and social media analytics – Concepts and methods

- Sentiment analytical approaches in tourism
- Supervised machine learning approaches
- Dictionary-based approaches
- Unsupervised machine learning approaches
- Semantic approaches
- Hybrid approaches
- Topic detection
 - Supervised topic detection
 - Unsupervised topic detection
- Sentiment detection
 - Subjectivity detection
 - Sentiment detection

Module 6: Case studies in web and media analytics

- Samples of case studies will be presented.

10. Trainer

TBC