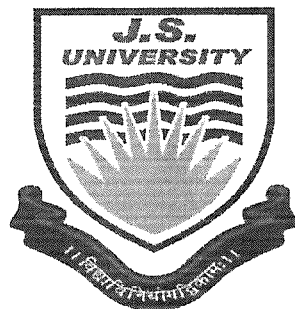


J.S. University, Shikohabad

Established by UP Govt. Act No. 07 of 2015

Recognized by U.G.C. under section 2 (f) of Act-1956



Value Added Course

VAC -071

Global Positioning System (GPS)

**Faculty of Physics
(2019-2020)**



J.S. University, Shikohabad
Faculty of Physics

Value Added Course

AY: 2019-20

Global Positioning System (GPS)

Learning Outcome:


This Course will provide knowledge about the global positioning system

Duration: 30 Hours

Course Objectives:-

After completion of the course the student shall be able to:-

- 1) Determine accuracy and precision of GPS data.
- 2) Calculate and analyze error sources for GPS data. Correct
- 3) Plan, collect, and process geospatial data using GPS technologies.
- 4) GPS data using differential correction. Represent GPS with other geospatial data on a map.
- 5) Represent GPS with other geospatial data on a map.

	J.S. University, Shikohabad Faculty of Physics	Value Added Course
		AY: 2019-20

Syllabus Outline

1. Module-1

Introduction to GPS

Background and History, System Overview, Key Elements of GPS Technology in Community Supervision Programs.

2. Module-2

Basic GPS Concept

Space Segment, Control Segment, User Segment, Intersection of Two Circles, Program Areas, Program and Policy Design, Practices, Key Considerations, GPS Tool Evaluation and Use.

3. Module-3

GPS Observables

Funding and Cost Factors, Measurement Of Pseudorange, Carrier-phase measurements, Staffing, Operations, Equipment Maintenance and Inventory.

4. Module-4


GPS Positioning Modes

Agency Perspective, Hardware, Software, Vendor Perspective, Autonomous Positioning (Point Positioning), Differential Positioning, Kinematic Positioning, Static Positioning

5. Module-5

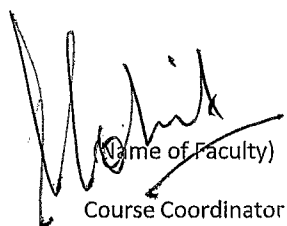
Future of GPS and Other Location-Based Technologies

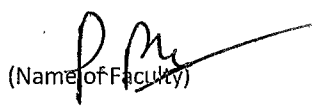
Technology Infrastructure, Other Location-Based Tracking Technologies, Television-Based Positioning with GPS

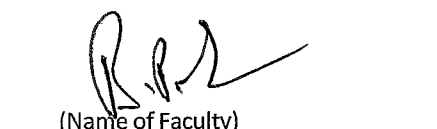
	<p style="text-align: center;">J.S. University, Shikohabad Faculty of Physics</p>	Value Added Course
		AY: 2019-20

References:-

1. GPS for Land Surveyors by Jan Van Sickle Edi. 2015.
2. Global positioning system by Signals Measurements and Performance by Pratap Mishra,Edi. 2010.
3. <https://nptel.ac.in/courses/105107157>
4. <https://www.ntnu.edu/employees/nahavand>
5. GPS Satellite Surveying by Alfred Leick, Lev Rapoport, Dmitry Tatarnikov. Edi. 2015.


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