



SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with ‘A’ Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING-IOT Including CS&BCT

COURSE NAME : 19CS307- DATA STRUCTURES

II YEAR / III SEMESTER

Unit IV- NON LINEAR DATA STRUCTURES – GRAPH



TOPIC: Euler Circuit

- Euler Circuit in a Directed Graph
- Eulerian Path is a path in graph that visits every edge exactly once. Eulerian Circuit is an Eulerian Path which starts and ends on the same vertex. (OR)
- A graph is said to be eulerian if it has a eulerian cycle. An Euler path is a path that uses every edge of a graph exactly once.
- An Euler circuit is a circuit that uses every edge of a graph exactly once.
- | An Euler path starts and ends at different vertices.
- | An Euler circuit starts and ends at the same vertex
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- **How to check if a directed graph is eulerian?**
A directed graph has an eulerian cycle if following conditions are true
 - 1) All vertices with nonzero degree belong to a single strongly connected component.
 - 2) In degree is equal to the out degree for every vertex.

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