

RASTA

Approved by AICTE, New Delhi,
Affiliated to Visvesvaraya Technological
University, Belagavi.

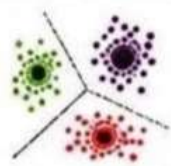


INSTITUTION'S
INNOVATION
COUNCIL
(Ministry of Education Initiative)

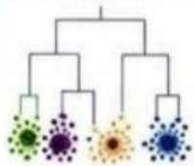
AI-ML IN CIVIL ENGINEERING : SERIES #1

PATTERN RECOGNITION THROUGH CLUSTERING

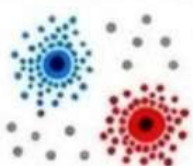
Unsupervised Learning for Discovering
Hidden Patterns in Civil Engineering Data



K-MEANS



HIERARCHICAL



DBSCAN

Discover • Group • Interpret • Decide

WORKSHOP CONTRIBUTOR

Dr. M. A. Jayaram

Professor, RASTA:
Centre for Road Technology
VOLVO-CE Campus, Bengaluru.

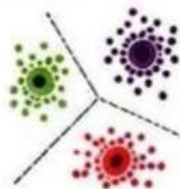
Author: Artificial Intelligence and
Applications in Core Engineering
PHI Learning, Delhi, January 2026.



WORKSHOP SESSIONS & TOPICS

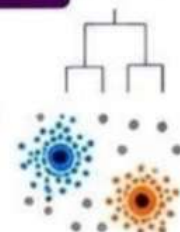
DAY 1 : MONDAY, 21 SEPTEMBER 2026

- 1 Unsupervised Machine Learning & Pattern Recognition
- 2 Fundamentals of Clustering
- 3 K-Means Clustering



DAY 2 : TUESDAY, 22 SEPTEMBER 2026

- 4 Hierarchical Clustering
- 5 DBSCAN – Density-Based Clustering
- 6 Evaluating & Interpreting Clustering Results



LIVE ONLINE IMPLEMENTATION – R & RSTUDIO

- 7 & 8 Implementation I: K-Means & Hierarchical Clustering
- Live demonstration using
Civil Engineering data



WHO CAN PARTICIPATE

Undergraduate & Postgraduate
Students, Faculty Members,
Researchers & Industry
Professionals from Civil
Engineering, other Core
Engineering & Applied
Science disciplines.



WORKSHOP TAKEAWAY

- ✓ Discover hidden patterns in engineering data
- ✓ Identify natural groups and anomalous observations
- ✓ Select and compare appropriate clustering methods
- ✓ Apply clustering using R/RStudio on Civil Engineering datasets

IMPORTANT NOTE

Upon registration, participants will receive detailed course content.
The workshop will be conducted subject to a minimum enrolment of
15 participants.



WORKSHOP DETAILS



21 – 22 SEPTEMBER
2026



Last date to Register
18/09/2026



Duration
8 Hours
(6 Hours Concepts +
2 Hours Hands-on)



Online Mode



WORKSHOP FEE

Students _____ : ₹ 500/-
Faculty / Research Scholar Registration _____ : ₹ 1,000/-
Industry Professionals / Other Registration _____ : ₹ 2,000/-



REGISTRATION



Scan to Register
or use the link below

[https://forms.gle/
LbG2V9snjas63ger8](https://forms.gle/LbG2V9snjas63ger8)



CONTACT DETAILS

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PAYMENT DETAILS

A/c Name : RASTA Contor for Road Technology
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IFSC : CBIN0281304
Bank : Central Bank of India
Branch : Peenya Industrial Area



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