



Two days Workshop on RNA SEQUENCING (RNA-seq) AND DATA ANALYSIS IN PLANT SCIENCE

Explore. Analyse. Discover.
Uncover gene expression and drive
innovation in plant research

24th - 25th June 2026



Understand
RNA-seq
from basics
to insights



Hands-on
training with
real datasets



Analyse & Visualize
gene expression



Knowledge to
abiotic & biotic
in plants

Workshop Objectives

- To provide comprehensive knowledge on RNA-seq concepts and workflows
- To train the participants in RNA-seq data analysis through hands-on sessions
- To familiarize the participants with the related bioinformatics tools and platforms

Learning Outcomes

- Understand the basics of NGS and Linux command line
- Understand RNA-seq file formats and the data analysis workflow
- Interpret differential gene expression results related to abiotic (heat, salinity, drought) and biotic (pathogens and pests) stresses
- Visualize data using plots and graphical tools

Eligibility

- M.Sc./M.Tech students
- Ph.D. Scholars
- Faculties in plant science, genetics and biotechnology programmes

Registration



Resource Persons

Dr. Kesavan Makkandan

CEO
ONEOMICS PRIVATE LIMITED
Tiruchirapalli, Tamil Nadu

Mrs. Sowmya Pulapet

Team Lead (Bioinformatics)
ONEOMICS PRIVATE LIMITED
Tiruchirapalli, Tamil Nadu

MORNING

Session 1 : Introduction to RNA-seq analysis in plant science

Session 2 : RNA-seq Workflow (Data formats, quality control and read alignments)

Afternoon

Hands-on Training

MORNING

Session 3 : Differential gene expression studies (Statistical concepts and interpretation)

Session 4 : RNA-seq data analysis and visualization

Afternoon

Hands-on Training

Session 5 : Discussion

DAY 1

DAY 2

Faculty Coordinators :

Dr.Karthika Rajendran

Dept of Genetics & Plant Breeding

Dr.Madhusmita dishri

Dept of Horticulture & Food Science

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Dr.R.Rajendran

Head of the Departments :

Dr.Annie Jenifer M

Dept of Genetics & Plant Breeding

Dr.S.Ramesh Kumar

Dept of Horticulture & Food Science