## Kind Attn: ILS provides a platform to all outstanding candidates who are doing Project/Dissertation work in our lab & help them to publish their papers in National & International Scientific Journals based on their findings of Projects.

Module AG: “Hands-on Industrial Training with State of Art Lectures in Agriculture” (Program Code: CRT-AG).

# Techniques Details: (For Duration of 30 Days; Fee: 8500/- + GST)

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| **S. No.** | **Lab Schedule** |
| 1 | Working in Agricultural Aspects. |
| 2 | General and Safety Instructions. |
| 3 | Good Laboratory Practices. |
| 4 | Principle and Handling of Laboratory Equipment’s. |
| 5 | Standardization of Solutions and Reagents. |
| 6 | Preparation of Reagents, Stock Solutions and Methods of Labelling and Storage. |
| 7 | Process of Sterilization and Decontamination. |
| 8 | **Soil, Plant,Water and Seed Testing:-** |
| (A) | Collection and Preparation of Soil Samples. |
| (B) | Estimation of pH, EC, Organic Carbon, NPKS, Micronutrients and Exchangeable  Sodium in Soil/Water. |
| (C) | Estimation of Cations and Anions. |
| (D) | Plant/Seed Sampling and Sample Preparation for Analysis. |
| (E) | Digestion of Plant Material and Estimation of N, P, K in Plant/Seed. |
| 9 | **Bio-pesticides & Bio-fertilizers:-** |
| (A) | Isolation and Purification of Azospirillum, Azotobacter, Rhizobium, Phosphate-  Solubilizers and Cyanobacteria. |
| (B) | Mass Multiplication and Inoculum Production of Biofertilizers. |
| 10 | **Micro Propagation Technologies:-** |
| (A) | Preparation and Sterilization of Growth Regulators. |
| (B) | Preparation of Working Media and Experimentation on Determining Optimum Concentration of Growth Regulators. |
| (C) | Callus Induction and Regeneration of Whole Plants from Different Parts of Plants. |
| (D) | Media Preparation for Tissue/Ovary Culture, Anther/Ovule Culture. |
| (E) | Isolation and Purification of Genomic DNA from Plant. |
| 11 | **Biochemistry:-** |
| (A) | Qualitative Test of Sugars & Proteins in Plants. |
| (B) | Estimation of Reducing and Non reducing in Sugar Cane Juice and Jaggery. |
| (C) | Quantitative Determination of Protein in Pulses / Oil Seeds. |
| (D) | Quantitative Determination of Fats and Oils in Pulses / Oil Seeds. |
| (E) | Estimation of Ca in Plants. |
| (F) | Experiments on Diffusion, Osmosis and Imbibition. |
| 12 | **Microbiology:-** |
| (A) | Preparation of Nutrient Broth, Czapek-Dox and Richard’s Media. |
| (B) | Enumeration and Measurement of Bacteria and Fungi. |
| (C) | Study of Microscope and Microscopic Techniques. |
| (D) | Simple and Gram’s Staining of Bacteria. |
| 13 | **Entomology:-** |
| (A) | Dissection of Grasshopper / Cockroach for the Study of Digestive and Reproductive System. |
| 14 | **Mushroom Cultivation:-** |
| (A) | Production of Spawn. |
| (B) | Cultivation of White Button Mushroom. |

**Techniques Details: (For Duration of 15 Days; Fee: 5200/- + GST)**

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| **S. No.** | **Lab Schedule** |
| 1 | Working in Agricultural Aspects. |
| 2 | General and Safety Instructions. |
| 3 | Good Laboratory Practices. |
| 4 | Principle and Handling of Laboratory Equipment’s. |
| 5 | Standardization of Solutions and Reagents. |
| 6 | Preparation of Reagents, Stock Solutions and Methods of Labelling and Storage. |
| 7 | Process of Sterilization and Decontamination. |
| 8 | **Soil Testing:-** |
| (A) | Collection and Preparation of Soil Samples. |
| (B) | Estimation of pH, EC, Organic Carbon, NPKS, Micronutrients and Exchangeable Sodium in Soil. |
| 9 | **Bio-pesticides & Bio-fertilizers:-** |
| (A) | Isolation and Purification of Azospirillum/ Azotobacter/ Rhizobium/ Phosphate-  Solubilizers and Cyanobacteria. |
| 10 | **Micro Propagation Technologies:-** |
| (A) | Preparation of Working Media and Experimentation on Determining Optimum Concentration of Growth Regulators. |
| (B) | Isolation and Purification of Genomic DNA from Plant. |
| 11 | **Biochemistry:-** |
| (A) | Qualitative Test of Sugars & Proteins in Plants. |
| (B) | Estimation of Reducing and Non reducing in Sugar Cane Juice and Jaggery. |
| (C) | Quantitative Determination of Protein in Pulses / Oil Seeds. |
| (D) | Quantitative Determination of Fats and Oils in Pulses / Oil Seeds. |
| (E) | Experiments on Diffusion/ Osmosis/ Imbibition. |
| 12 | **Microbiology:-** |
| (A) | Preparation of Nutrient Broth, Czapek-Dox and Richard’s Media. |
| (B) | Study of Microscope and Microscopic Techniques. |
| (C) | Simple and Gram’s Staining of Bacteria. |
| 13 | Mushroom Cultivation. |

**\*\*\*Thanks\*\*\***