



**One week workshop on**  
**Research Trends in Machine Learning**  
**(RTML-17)**

(October 09<sup>th</sup> - 11<sup>th</sup>, 2017 & November 16<sup>th</sup>-18<sup>th</sup>, 2017)

**Organized by**

**Department of Information Technology**

**JNTUK - University College of Engineering Vizianagaram (A)**

**Dwarapudi (post), VIZIANAGARAM,**

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**[www.jntukucev.ac.in](http://www.jntukucev.ac.in)**



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**Workshop Description:**

Machine Learning draws on concepts and results from many fields, including Statistics, Artificial Intelligence, Philosophy, Information Theory, Biology, Cognitive Science, Computational Complexity, and Control Theory.

The **Motivation** of conducting this workshop is that the best way to learn about Machine Learning is to view it from all of these perspectives and to understand the problem settings, algorithms, and assumptions that underlie each intended in fields such as Computer Science, Engineering, Statistics, and the Social Sciences, and as a reference for Software Professionals and Practitioners.

**Challenges:**

*Anomaly Detection, Natural Language Processing (NLP), Recommendation systems, Named entity recognition, Image recognition etc.*

**Pre-requisites:**

Basic experience in programming using R and Python is necessary for doing practical exercises. We assume no prior knowledge in Machine Learning (as it is an introductory course), however basic knowledge of Probability, Linear Algebra, Statistics and algorithms.

**Pedagogy:**

Will consist of theoretical sessions to enable participants to understand the conceptual base and contain programming exercises to reinforce the learning. **Participants are required to bring their own Laptops** (Wi-Fi connectivity will be available)

**Target Audience:**

Academicians, Research Scholars, PG students, Developers, Data Scientists/Data Analysts and Young Engineers who want to learn the concepts of Machine Learning and its Applications.

<p><b>Workshop Website</b> For registration and latest updates visit the below <a href="https://sites.google.com/view/research-trends-ml-2017">https://sites.google.com/view/research-trends-ml-2017</a></p>	<p><b>Out Come:</b> Machine Learning theory attempts to answer questions such as “How does Learning performance vary with the number of training examples presented?” and “Which Learning algorithms are most appropriate for various types of learning tasks?”. The practice of Machine Learning is covered by presenting the major algorithms in the field, along with illustrative traces of their operation.</p>
<p><b>Registration Fees</b> Young Engineers : Rs.1000/- PG Students : Rs. 1500/- Research Scholars : Rs. 2000/- Academician : Rs. 2500/- Industry &amp; Others: Rs. 3000/- Interested candidates can apply through online by visiting the URL: <a href="https://goo.gl/forms/XbbwBvIU3Gti4NY83">https://goo.gl/forms/XbbwBvIU3Gti4NY83</a></p> <p><b>Payment</b> Payment should be done with the below mentioned Account:</p> <p><b>For Cash Deposit/ Online Transfer</b> A/C number: 405901011002788 Name : HOD IT UCEV Bank : Vijaya Bank Branch : Vizianagaram,AP IFSC code : VIJB0004059</p>	<p><b>Topics Covered in this Workshop:</b></p> <p><b>1.Introduction to Machine Learning &amp; Analytics</b> <b>Classification of Analytics</b></p> <ol style="list-style-type: none"> <li>i. Descriptive Data Analysis</li> <li>ii. Predictive Analytics</li> <li>iii. Prescriptive Analytics</li> </ol> <p><b>2. Predictive Analytics</b></p> <ol style="list-style-type: none"> <li><b>i. Supervised Learning</b> <ul style="list-style-type: none"> <li>• <b>Regression</b> Linear &amp; Polynomial Regression, Bayes Theorem, Neural Networks, Back Propagation, SVR</li> <li>• <b>Classification</b> Logistic Regression, SVM, Decision Trees, Bayesian Models</li> </ul> </li> <li><b>ii. Unsupervised Learning</b> <ul style="list-style-type: none"> <li>• <b>Clustering Techniques:</b> K-Means, DBSCAN etc</li> </ul> </li> </ol> <p><b>3. Computer Vision</b></p> <ul style="list-style-type: none"> <li>• Image &amp; Video Processing</li> <li>• Deep Learning</li> </ul> <p><b>4. Machine Learning with R and Python</b></p> <ul style="list-style-type: none"> <li>• Building Models with R &amp; Python</li> <li>• Case Studies.</li> </ul>
<p><b>Handouts, Materials, Supplies</b></p>	<p><b>Participants are required to bring their own laptops</b> (the Wi-Fi connectivity will be available)</p>
<p><b>Pre-requisites</b></p>	<p>Basic experience in programming using R and Python is necessary for doing practical exercises. We assume no prior knowledge in machine learning (as it is an introductory course), however basic knowledge of probability, linear algebra, statistics and algorithms.</p>
<p><b>Resource persons</b></p>	<ul style="list-style-type: none"> <li>• The Faculty Members of IT,JNTUK-UCEV and</li> <li>• Reputed Organizations.</li> </ul>
<p><b>For Payment through DD</b></p>	<p>DD in favor of “<b>HOD IT UCEV</b>”, payable at <b>Vizianagaram</b>. <b>Registrations</b> are accepted only after paying the fee. # <b>Registration Fee includes Workshop Kit, Lunch and Snacks for One Week.</b> # Accommodation is available for outreach participants on payment basis at UCEV Hostels on Prior Request. For further details contact the Coordinator.</p>