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LIST OF ALGORITHMS

LIST OF ABBREVIATIONS

Abbreviation	Definition
2D	Two dimensional
3D	Three dimensional
ABCNet	Attention-Based Cloud net
AFC	Adaptive Feature Clustering
ALF	Agricultural Land use Fraction
ANN	Artificial Neural Network
AP	Average Precision
BC	Bezier Curve
BMP	Bitmap
BPTT	Back Propagation Through Time
CNN	Convolutional Neural Networks
COCO	Common Objects in Context
ConvNets	Convolutional Neural Network
CRNN	Convolutional Recurrent Neural Networks
CTC	Connectionist Temporal Classification
CTPN	Connectionist Text Proposal Network
DCNN	Deep Convolutional Neural Networks
DDA	Digital Difference Analyzer
DEM	Digital Elevation Model
DOC	Dual adaptation and Clustering
DSM	Digital Surface Model
DTM	Digital Terrain Model

EAST	Efficient and Accurate Scene Text
ED	Euclidean Distance
EU-WFD	European Union Water Framework Directive
Fast R-CNN	Fast Region with Convolutional Neural Network
Faster R-CNN	Faster Region with Convolutional Neural Network
FC	Fully Connected
FPN	Feature Pyramid Network
GIS	Geographic Information System
GPU	Graphical Processing Unit
GRWL	Global River Widths from Landsat
HSV	Hue-Saturation-Value
IoU	Intersection over Union
JPG	Joint Photographic Experts Group
LiDAR	Light Detection and Ranging
LSTM	Long Short-Term Memory
mAP	mean Average Precision
MAP	Multi-Angled Parallelism
MATLAB	MATrix LABoratory
MLP	Multi-layered Perceptron
MobileNet	Mobile Network
NMS	Non-Maximum Suppression
PSENet	Progressive Scale Expansion Network
RAM	Random Access Memory
RCC	River Continuum Concept
R-CNN	Region with Convolutional Neural Network

ResNet	Residual Network
RGB	Red-Green-Blue
RNN	Recurrent Neural Network
RoI	Region of Interest
RPN	Region Proposal Network
SAR	Synthetic Aperture Rader
SegLink	Segment Linking
SfM	Structure from Motion
SG	Sign of Gradient
SGD	Stochastic Gradient Descent
SVM	Support Vector Machine
TS	Topographic Sheet
UDF	Urban wastewater-river Discharge Fraction
YOLO	You Look Only Once

Appendices

Appendix 1: List of Publications

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"Automatic Vectorization of features from topographic sheet and its representation for GIS Application"

Submitted by **Mr. Ashis Pradhan** under the supervision of **Dr. Mohan Pratap Pradhan**, Department of Computer Applications, School of Physical Sciences, Sikkim University, Gangtok, Sikkim.

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