

2018-19 DIP AND COMMUNICATION M.TECH PROJECTS

S.No	TITLES	DOMAIN
	DIGITAL IMAGE PROCESSING	
1	A Gabor Feature-based Quality Assessment Model for the Screen Content Images	IMAGE PROCESSING
2	A Variational Pansharpening Approach Based on Reproducible Kernel Hilbert Space and Heaviside Function	IMAGE PROCESSING
3	Blurriness-guided Unsharp Masking	IMAGE PROCESSING
4	Convolutional Regression for Visual Tracking	IMAGE PROCESSING
5	Co-Saliency Detection for RGBD Images Based on Multi-Constraint Feature Matching and Cross Label Propagation	IMAGE PROCESSING
	Explicit Ringing Removal in Image Deblurring	IMAGE PROCESSING
7	Full Scale Regression-based Injection Coefficients for Panchromatic Sharpening	IMAGE PROCESSING
8	Halftone Image Watermarking by Content Aware Double-sided Embedding Error Diffusion	IMAGE PROCESSING
9	Image Haze Removal via Reference Retrieval and Scene Prior	IMAGE PROCESSING
10	Image Super-resolution with Parametric Sparse Model Learning	IMAGE PROCESSING
11	Learning Temporal Dynamics for Video Super-Resolution: A Deep Learning Approach	IMAGE PROCESSING
12	Learning View-Specific Deep Networks for Person Re-Identification	IMAGE PROCESSING
13	Manifold-based Visual Object Counting	IMAGE PROCESSING

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14	Moiré Photo Restoration Using Multiresolution Convolutional Neural Networks	IMAGE PROCESSING
15	NIMA: Neural Image Assessment	IMAGE PROCESSING
16	SCOM: Spatiotemporal Constrained Optimization for Salient Object Detection	IMAGE PROCESSING
17	Simultaneously Discovering and Localizing Common Objects in Wild Images	IMAGE PROCESSING
18	Single-Image Super-Resolution Based on Rational Fractal Interpolation	IMAGE PROCESSING
19	Superpixel Hierarchy	IMAGE PROCESSING
20	Towards Optimal Denoising of Image Contrast	IMAGE PROCESSING
21	Skin Segmentation based on Improved Thresholding Method	IMAGE PROCESSING
22	Optimization of Object – Based Image Segmentation in Classifying Water Region	IMAGE PROCESSING
23	Performance Comparison and Analysis of Medical Image Segmentation Techniques	IMAGE PROCESSING
24	Image Dehazing Method by Fusing Weighted Near-Infrared Image	IMAGE PROCESSING
25	Using multilayer walk for image segmentation	IMAGE PROCESSING
26	Region of interest of human lumbar spine segmentation using geometric triangular analysis	IMAGE PROCESSING
27	A Framework for Outdoor RGB Image Enhancement and Dehazing	IMAGE PROCESSING
28	Model Assisted Multi-band Fusion for Single Image Enhancement and Applications to Robot Vision	IMAGE PROCESSING

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29	Single image dehazing using local linear fusion	IMAGE PROCESSING
30	A Cascaded Convolutional Neural Network for Single Image Dehazing	IMAGE PROCESSING
31	A Naturalness Preserved Fast Dehazing Algorithm Using HSV Color Space	IMAGE PROCESSING
32	LAPSE: Low-Overhead Adaptive Power Saving and Contrast Enhancement for OLEDs	IMAGE PROCESSING
33	Hybrid robust iris recognition approach using iris image pre-processing, two-dimensional gabor features and multi-layer perceptron neural network/PSO	IMAGE PROCESSING
34	Intra-Hour Cloud Tracking Based on Probability Hypothesis Density Filtering	IMAGE PROCESSING
35	Digital Affine Shear Filter Banks with 2-Layer Structure and Their Applications in Image Processing	IMAGE PROCESSING
36	High-Speed Image Velocimetry System for Rainfall Measurement	IMAGE PROCESSING
37	Plenoptic Image Coding using Macropixel-based Intra Prediction	IMAGE PROCESSING
38	Image Processing and Analysis of Phase-Contrast Microscopic Images of Activated Sludge to Monitor the Wastewater Treatment Plants	IMAGE PROCESSING
39	Multi-Organ Plant Classification based on Convolutional and Recurrent Neural networks	IMAGE PROCESSING

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40	A Fusion Framework for Camouflaged Moving Foreground Detection in the Wavelet Domain	IMAGE PROCESSING
41	Visual Tracking with Weighted Adaptive Local Sparse Appearance Model via Spatio-Temporal Context Learning	IMAGE PROCESSING
42	SBPG: Secure Better Portable Graphics for Trustworthy Media Communications in the IoT (Invited Paper)	IMAGE PROCESSING
43	Distinguishing between Natural and Computer-Generated Images Using Convolutional Neural Networks	IMAGE PROCESSING
44	Breaking News: Article Annotation by Image and Text Processing	IMAGE PROCESSING
45	Learning a Patch Quality Comparator for Single Image Dehazing	IMAGE PROCESSING
46	Joint Crypto-Stego Scheme for Enhanced Image Protection with Nearest-Centroid Clustering	IMAGE PROCESSING
47	From Focal Stack to Tensor Light-Field Display	IMAGE PROCESSING
48	Beyond Joints: Learning Representations from Primitive Geometries for Skeleton-based Action Recognition and Detection	IMAGE PROCESSING
49	Cross-Paced Representation Learning with Partial Curricula for Sketch-based Image Retrieval	IMAGE PROCESSING
50	Find who to look at: Turning from action to saliency	IMAGE PROCESSING
51	Robust Lane-mark Extraction for Autonomous Driving under Complex Real Conditions	IMAGE PROCESSING

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52	Automatic Pearl Classification Machine Based on Multi-Stream Convolutional Neural Network	IMAGE PROCESSING
53	An Accurate Multi-Row Panorama Generation Using Multi-Point Joint Stitching	IMAGE PROCESSING
54	H-DenseUNet: Hybrid Densely Connected UNet for Liver and Tumor Segmentation from CT Volumes	IMAGE PROCESSING
55	3D Subject-Specific Shape and Density Estimation of the Lumbar Spine from a Single Anteroposterior DXA Image Including Assessment of Cortical and Trabecular Bone	IMAGE PROCESSING
56	NOVIFAST: A fast algorithm for accurate and precise VFA MRI T1 mapping	IMAGE PROCESSING
57	Automatic Microaneurysms Detection on Retinal Images Using Deep Convolution Neural Network	IMAGE PROCESSING
58	Extraction of Nostril Regions using Periodical Thermal Change for Breath Monitoring	IMAGE PROCESSING
59	Active Contour Segmentation of Polyps in Capsule Endoscopic Images	IMAGE PROCESSING
60	Segmentation of Optic Disc from Fundus images	IMAGE PROCESSING
61	A Framework of Predicting Drug Resistance of Lung Tuberculosis by Utilizing Radiological Images	IMAGE PROCESSING
62	A deep learning approach for vital signs compression and energy efficient delivery in mHealth systems	IMAGE PROCESSING
63	Identification and Removal of Physiological Artifacts from Electroencephalogram Signals: A Review	IMAGE PROCESSING

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64	Regularization Analysis and Design for Prior-Image-Based X-ray CT Reconstruction	IMAGE PROCESSING
65	A Multi-Anatomical Retinal Structure Segmentation System for Automatic Eye Screening Using Morphological Adaptive Fuzzy Thresholding	IMAGE PROCESSING
66	A Novel System to Measure Infants' Nutritive Sucking During Breastfeeding: the Breastfeeding Diagnostic Device (BDD)	IMAGE PROCESSING
67	The Fuzzy System as a Promising Tool for Drugs Selection in Medical Practice	IMAGE PROCESSING
68	Random Walker Framework for Sensor-based Echocardiography Fusion	IMAGE PROCESSING
69	Acoustical Emission Analysis by Unsupervised Graph Mining: A Novel Biomarker of Knee Health Status	IMAGE PROCESSING
70	An automatic detection of the ROI using Otsu thresholding in nonlinear difference EIT imaging	IMAGE PROCESSING
71	Label-Free Assessment of Premalignant Gastric Lesions Using Multimodal Nonlinear Optical Microscopy	IMAGE PROCESSING
72	Temporally Coherent Illumination Normalization for Indocyanine Green Video Angiography	IMAGE PROCESSING
73	Automatic localization of the needle target for ultrasound-guided epidural injections	IMAGE PROCESSING

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74	FiloGen: A Model-Based Generator of Synthetic 3D Time-Lapse Sequences of Single Motile Cells with Growing and Branching Filopodia	IMAGE PROCESSING
75	Automated Dental Image Analysis by Deep Learning on Small Dataset	IMAGE PROCESSING
76	PWLS-ULTRA: An Efficient Clustering and Learning-Based Approach for Low-Dose 3D CT Image Reconstruction	IMAGE PROCESSING
77	A Novel Method to Detect Interface of Conductivity Changes in Magneto-Acousto- Electrical Tomography Using Chirp Signal Excitation Method	IMAGE PROCESSING
78	DeepSS: Exploring Splice Site Motif Through Convolutional Neural Network Directly From DNA Sequence	IMAGE PROCESSING
79	Detection of Borderline Mental Disorder On Electro cardio signals Using EMD	IMAGE PROCESSING
80	Brain Tumors Classification From MR images Using a Neural Network and the Central Moments	IMAGE PROCESSING
81	Parallel and High Speed Hashing in GPU for Telemedicine Applications	IMAGE PROCESSING
	COMMUNICATION	
1	Performance Analysis of Secret Precoding-Aided Spatial Modulation with Finite-Alphabet Signaling	COMMUNICATION
2	Massive-MIMO Enabled FDD Wireless Backhaul Small-cell Relay Networks: AF Protocol Based Designs with Low Channel Estimation and Feedback Complexity	COMMUNICATION
3	On Physical-Layer Security in Multiuser Visible Light Communication Systems with Non-Orthogonal Multiple Access	COMMUNICATION
4	Multistatic Scatter Radio Sensor Networks for Extended Coverage	COMMUNICATION

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5	Sensitive and Nonlinear Far Field RF Energy Harvesting in Wireless Communications	COMMUNICATION
6	Energy-Efficient Hybrid Precoding Design for Millimeter-Wave Massive MIMO Systems Via Coordinate Update Algorithms	COMMUNICATION
7	Capacity Results on Multiple-Input Single-Output Wireless Optical Channels	COMMUNICATION
8	A Novel Digital-Intensive Hybrid Polar-I/Q RF Transmitter Architecture	COMMUNICATION
9	Mode Hopping for Anti-Jamming in Radio Vortex Wireless Communications	COMMUNICATION
10	Coverage Analysis for Millimeter Wave Cellular Networks with Imperfect Beam Alignment	COMMUNICATION
11	Propagation Models and Performance Evaluation for 5G Millimeter-Wave Bands	COMMUNICATION
12	Distributed Power Control for Multi-hop Energy Harvesting Links with Retransmission	COMMUNICATION
13	Optimal Power Allocation by Imperfect Hardware Analysis in Untrusted Relaying Networks	COMMUNICATION
14	Dirty MIMO Transmitters: Does It Matter?	COMMUNICATION
15	Intrinsic Secrecy of EGT and MRT Precoders for Proper and Improper Modulations	COMMUNICATION
16	A Non-stationary Service Curve Model for Estimation of Cellular Sleep Scheduling	COMMUNICATION
17	Massive MIMO has Unlimited Capacity	COMMUNICATION
18	A Random Access Protocol for Pilot Allocation in Crowded Massive MIMO Systems	COMMUNICATION
19	Time-to-Space Division Multiplexing for Tb/s Mobile Cells	COMMUNICATION
20	Super-Resolution Channel Estimation for MmWave Massive MIMO with Hybrid Precoding	COMMUNICATION
21	Large System Analysis of Two-Stage Beamforming With Limited Feedback in FDD Massive MIMO Systems	COMMUNICATION
22	Channel Feedback Codebook Design for Millimeter-Wave Massive MIMO Systems Relying on Lens Antenna Array	COMMUNICATION
23	Network Deployment for Maximal Energy Efficiency in Uplink with Multislope Path Loss	COMMUNICATION

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24	High-sensitive Smartphone-based Raman System based on Cloud Network Architecture	COMMUNICATION
25	Channel Feedback Based on AoD-Adaptive Subspace Codebook in FDD Massive MIMO Systems	COMMUNICATION
26	Geometric Mean Decomposition Based Hybrid Precoding for Millimeter-Wave Massive MIMO	COMMUNICATION
27	Relay Hybrid Precoding Design in Millimeter-Wave Massive MIMO Systems	COMMUNICATION
28	Energy-Efficient D2D Communication Based Retransmission Scheme for Reliable Multicast in Wireless Cellular Network	COMMUNICATION
29	Achieving Green Transmission With Energy Harvesting Based Cooperative Communication	COMMUNICATION
30	Uplink Access Protocol in IEEE 802.11ac	COMMUNICATION
31	Modeling and Control of a Master-Slave PV Inverter With N-Paralleled Inverters and Three-Phase Three-Limb Inductors	COMMUNICATION
32	Throughput Maximization for Multi-Hop Decode-and-Forward Relay Network With Wireless Energy Harvesting	COMMUNICATION
33	Slice as an Evolutionary Service: Genetic Optimization for Inter-Slice Resource Management in 5G Networks	COMMUNICATION
34	Secret Key Establishment via RSS Trajectory Matching Between Wearable Devices	COMMUNICATION
35	Cellular Network Traces Towards 5G: Usage, Analysis and Generation	COMMUNICATION
36	Compressive Data Gathering Based on Even Clustering for Wireless Sensor Networks	COMMUNICATION
37	OEHadoop: Accelerate Hadoop Applications by Co-designing Hadoop with Data Center Network	COMMUNICATION
38	Efficient and Consistent Flow Update for Software Defined Networks	COMMUNICATION
39	Resource Allocation for Real-time D2D Communications underlying Cellular Networks	COMMUNICATION

S.no	TITLE	DOMAIN
1	Low-Rank Physical Model Recovery From Low-Rank Signal Approximation	SIGNAL PROCESSING

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2	Sparsity And Low-Rank Amplitude Based Blind Source Separation	SIGNAL PROCESSING
3	Ber Analysis Of Regularized Least Squares For Bpsk Recovery	SIGNAL PROCESSING
4	Spectrum Energy Based Voice Activity Detection	SIGNAL PROCESSING
5	Overview Of Airborne Sar Data Processing Algorithms	SIGNAL PROCESSING
6	Speech/Music Discrimination For Analysis Of Radio Stations	SIGNAL PROCESSING
7	Analysing Acoustic Model Changes For Active Learning In Automatic Speech Recognition	SIGNAL PROCESSING
8	Study On Ofdm Frequency Offset Estimation Based On Emd Algorithm	SIGNAL PROCESSING
9	Scalable Solvers Of Random Quadratic Equations Via Stochastic Truncated Amplitude Flow	SIGNAL PROCESSING

PROJECT SUPPORTS FOR STUDENTS:

- ❖ PROJECT ABSTRACT
- ❖ PROJECT IEEE BASE PAPER/ REFERENCE PAPER
- ❖ PROJECT PRESENTATION IN PPT FORMAT

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- ❖ PROJECT REVIEW ASSISTANCE FOR FINAL VIVA
- ❖ PROJECT DIAGRAMS
- ❖ PROJECT OUTPUT
- ❖ PROJECT REPORT
- ❖ PROJECT SCREEN SHOTS
- ❖ PROJECT EXPLANATION
- ❖ PLAGARISM DOCUMENTATION
- ❖ INTERNATIONAL JOURNAL/CONFERENCE PUBLISHING
- ❖ PROJECT ACCEPTANCE LETTER
- ❖ PROJECT COMPLETION CERTIFICATE