SPIRO
SOLUTIONS PVT LTD

IMAGE PROCESSING
PROJECT TITLE
2017 - 2018

MATLAB
DIGITAL IMAGE/SIGNAL PROCESSING
TITLES 2017-2018

S.NO	PROJECT CODE	TITLE	YEAR
		MEDICAL IMAGE PROCESSING	
1	ITIMP01	Feature Sensitive Label Fusion with Random Walker for Atlas-based Image Segmentation	2017
2	ITIMP02	Tumor cell load and heterogeneity estimation from diffusion-weighted MRI calibrated with histological data: an example from lung cancer	2017
3	ITIMP03	Color Retinal Image Enhancement Based on Luminosity and Contrast Adjustment	2017
4	ITIMP04	Segmentation of locally varying numbers of outer retinal layers by a model selection approach	2017
5	ITIMP05	A robust active contour segmentation based on fractional-order differentiation and fuzzy energy	2017
6	ITIMP06	Automatic Detection of Retinal Lesions for Screening of Diabetic Retinopathy	2017
7	ITIMP07	Automatic Nuclear Segmentation Using Multi-scale Radial Line Scanning with Dynamic Programming	2017
8	ITIMP08	Geometry Based Pectoral Muscle Segmentation from MLO Mammogram Views	2017
9	ITIMP09	A Discriminatively Trained Fully Connected Conditional Random Field Model for Blood Vessel Segmentation in Fundus Images	2016
`10	ITIMP10	Bleeding Frame and Region Detection in the Wireless Capsule Endoscopy Video	2016
11	ITIMP11	Statistical Modeling of Retinal Optical Coherent Tomography	2016
12	ITIMP12	Red Lesion Detection using Dynamic Shape Features for Diabetic Retinopathy Screening	2016
13	ITIMP13	Brain Tumor Segmentation using Convolutional Neural Networks in MRI Images	2016
14	ITIMP14	Optic Disc Localization in Retinal Images based on Cumulative Sum Fields	2016

		IMAGE RETRIEVAL	
15	ITIMP15	Unsupervised Word Spotting in Historical Handwritten Document Images using Document-oriented Local Features	2017
16	ITIMP16	Landmark Image Retrieval by Jointing Feature Refinement and Multimodal Classifier Learning	2017
17	ITIMP17	Compositional Model-Based Sketch Generator in Facial Entertainment	2017
18	ITIMP18	Clothes Co-Parsing via Joint Image Segmentation and Labeling with Application to Clothing Retrieval	2016
		MACHINE LEARNING &NEURAL NETWORKS	
19	ITIMP19	Traffic Sign Detection and Recognition Using Fuzzy Segmentation Approach and Artificial Neural Network Classifier Respectively	2017
20	ITIMP20	Clearing the Skies: A deep network architecture for single-image rain removal	2017
21	ITIMP21	Semi-Supervised Image-to-Video Adaptation for Video Action Recognition	2017
22	ITIMP22	Machine learning methods for binary and multiclass classification of melanoma thickness from dermoscopic images	2016
		IMAGE SEGMENTATION	
23	ITIMP23	Real-Time Moving Object Segmentation and Classification from HEVC Compressed Surveillance Video	2017
24	ITIMP24	Salient Region Detection via Discriminative Dictionary Learning and Joint Bayesian Inference	2017
25	ITIMP25	An Incremental Framework for Video-Based Traffic Sign Detection, Tracking, and Recognition	2017
26	ITIMP26	RWBD: Learning Robust Weighted Binary Descriptor for Image Matching	2017
27	ITIMP27	A Multi-objective Decision Making Approach for Solving the Image Segmentation Fusion Problem	2017
28	ITIMP28	Comprehensive and Practical Vision System for Self-driving Vehicle Lane-Level Localization	2016
29	ITIMP29	Patch-Based Video Denoising With Optical Flow Estimation	2016
30	ITIMP30	CASAIR: Content and Shape-Aware Image Retargeting and Its Applications	2016

		STEGANOGRAPHY		
31	ITIMP31	A Robust and Secure Video Steganography Method in DWT-DCT Domains Based on Multiple Object Tracking and ECC	2017
32	ITIMP32	Watermarking of Digital Media with Encrypted Biometric Features for Digital Ownership	2017
33	ITIMP33	On the Security of a Class of Diffusion Mechanisms for Image Encryption	2017
34	ITIMP34	An image encryption algorithm based on auto-blocking and ECG signal	2016
35	ITIMP35	Remote Authentication via Biometrics: A Robust Video-Object Steganographic Mechanism Over Wireless Networks	2016
36	ITIMP36	High Capacity Reversible Data Hiding in Encrypted Images by Patch-Level Sparse Representation	2016
		BIOMETRICS	
37	ITIMP37	An Efficient Signature Verification Method based on an Interval Symbolic Representation and a Fuzzy Similarity Measure	2017
38	ITIMP38	Facial Expression Recognition in Video with Multiple Feature Fusion	2017
39	ITIMP39	Robust Iris Segmentation Method Based on a New Active Contour Force With a Noncircular Normalization	2017
40	ITIMP40	Robust Point Set Matching for Partial Face Recognition	2016
41	ITIMP41	Fingerprint Liveness Detection From Single Image Using Low Level Features and Shape Analysis	2016
		AUDIO PROCESSING	
42	ITIMP42	Audio-based Granularity-adapted Emotion Classification	2017
43	ITIMP43	Sampling and Exact Reconstruction of Pulses with Variable Width	2017
44	ITIMP44	Anti-Spoofing for Text-Independent Speaker Verification: An Initial Database, Comparison of Countermeasures, and Human Performance	2016
45	ITIMP45	Speech Emotion Recognition Using Fourier Parameters	2015
		ARDUINO WITH MATLAB	
46	ITIMP46	Sensor-Based Assistive Devices for Visually-Impaired People: Current Status, Challenges, and Future Directions	2017
47	ITIMP47	Mobile Robot Positioning by using Low-Cost Visual Tracking System	2017
48	ITIMP48	Accident Avoidance by Using Road Sign Recognition System	2017

49	ITIMP49	Real Time Fire and Smoke Detection using Multi-Expert System for Video-Surveillance Applications	2017
50	ITIMP50	A Monitoring Device for Blind	2017
51	ITIMP51	Automated Control System for Arduino and Android Based Intelligent Greenhouse	2017
52	ITIMP52	Vision based Bottle classification and Automatic Bottle Filling System	2017
53	ITIMP53	Arduino Based Supervision of Banana Ripening Stages	2017
54	ITIMP54	Biometric Access for a Secure Smart Robot	2017
55	ITIMP55	Remote Image Sensing Platform Based on Arduino	2017
RASPBERRY PI WITH MATLAB			
56	ITIMP56	Text-to-Speech Device for Patients with Low Vision	2017
57	ITIMP57	Raspberry Pi Image Processing Based Economical Automated Toll System	2017
58	ITIMP58	Road Sign Recognition System on Raspberry Pi	2017
59	ITIMP59	Real-time Fire Detection for Video Surveillance Applications using a Combination of Experts based on Color, Shape and Motion	2017
60	ITIMP60	Smart Drip Irrigation System using Raspberry pi and Arduino	2017
61	ITIMP61	An Efficient Attendance Management System based on Face Recognition using Matlab and Raspberry Pi 2	2017
62	ITIMP62	Raspberry pi based face recognition system for door unlocking	2017
63	ITIMP63	Smart Motion Detection System using Raspberry Pi	2017
64	ITIMP64	Pedestrian Counting System Using Raspberry-Pi	2017
65	ITIMP65	Smart monitoring of worker posture in an office environment	2017

Technologies and Domain used:

IEEE 2017, Java, J2ee, Android, Bigdata, Dot net, Arduino, Raspberry pi, IOT, Renewable, PHP, Embedded, Vlsi, Matlab, VB, Net working, Data Mining, Image Processing, Cloud Computing, Mobile Computing, Multimedia, Network Security, Soft Engg, Grid Computing, Automation, Robotics, Communication, RF, Zigbee, Blue tooth, GSM/GPS/GPRS, Power Electronics & Systems, Electrical, DSP, RTOS, Bio metrics, Civil, Analysis, Fabrication, Mechanical, CFD, FEA, etc.

Features

- Latest 2017 IEEE, Science Direct, ACM based project concept and solutions.
- State of the art infrastructure, Innovative Project training methods.
- All our efforts are focused on students to meet industry requirements.
- Our environment is encapsulated with doctorates, professionals and other experts.
- Excellent Placements through our **Spiro HR Management Consultants (SMC) Pvt Ltd.**

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