#### **Parallel Technical Sessions**

## Session -IS101A (Intelligent Systems): Day 1 (10.01.2020) at 14:30-16:00, Room:

#### **Media Studio**

Session Chair		To Be Advised (TBA)			
Session Co	-Chair	ТВА			
Paper ID		Title	Room		
33	Toddle	r Sensory-Motor Development for Object Manipulation by	Media		
	Analyz	ing Hand-Pose	Studio		
35	Predict	Predicting the Demand of Prescribed Medicines in Bangladesh using			
	Artifici	Artificial Intelligent (AI) based Long Short-Term Memory (LSTM) Model Studio			
192	Improv	Media			
	Replacement Studio				
45	Hybrid	Hybridization of Evolutionary and Swarm Intelligence Algorithms for			
	improv	ved performance: A case study with TSP problem	Studio		

### Session -TR101C (Blockchain (Tech Trends)): Day 1 (10.01.2020) at 14:30-16:00,

Room: 3204

Session Chair		ТВА			
Session Co-Chair		ТВА			
Paper ID		Title	Room		
42	A dece	entralized computational system built on blockchain for	3204		
	educa	educational institutions.			
91	Barrie	Barriers to Growth of Renewable Energy Technology in Bangladesh:			
	Case o	Case of Solar Home System in Rural Regions			
47	BUMA	BUMAR: A Blockchain-Empowered UAV-Assisted Smart Surveillance			
	Archite	Architecture for Marine Areas			
86	Secure	Secured Blockchain Based Decentralized Internet: A Proposed New			
	Intern	et			

# Session -NC101B (Networking and Communications): Day 1 (10.01.2020) at 14:30-16:00, Room: 3202

Session Chair		ТВА			
Session Co	o-Chair	ТВА			
Paper ID		Title	Room		
23	Evaluat	ion of Four SDN Controllers with Firewall Modules	3202		
32		Hidden Markov Model based Trust Management Model for Underwater Wireless Sensor Networks			
69	Reducii	Reducing Redundancy by Optimizing Dominant Pruning Algorithm for Wireless Ad Hoc Networks			
72	_	and Performance Evaluation of Eight Channel WDM Based PON with PSK Transmitter Configuration	3202		

### Session -SE101D (Software Engineering): Day 1 (10.01.2020) at 14:30-16:00,

Room: 3205

Session Chair		To Be Advised (TBA)		
Session Co-Chair		ТВА		
Paper ID		Title	Room	
52		A Hybrid Framework for Interconnecting Various Software Engineering Process Models and Techniques		
117		An approach to secure multi-tier websites through SQL-Injection detection and prevention		
95	Relaxe	Relaxed Reorder Buffer Commit with Batch Context Switch		
102		lysis of Incentive Model (PII) to Maximize the Beneficiary Outreach uring Privacy	3205	

### Session -COMVIS102A (Computer Vision): Day 1 (10.01.2020) at 16:15-17:45,

**Room: Media Studio** 

Session Chair		ТВА			
Session Co	o-Chair	ТВА			
Paper ID		Title	Room		
27	Robust	: Underwater Object Detection with Autonomous Underwater	Media		
	Vehicle	e: A Comprehensive Study	Studio		
195	Augme	Augmented Primitive Data Types of Programming Language			
		Stud			
41	Autom	Automatic Control Point Selection System based Anthropomorphic			
	Animal	Animal Face Masking			
60	Extract	Extracting Relevant Information Using Handheld Augmented Reality			
			Studio		

## Session -IS102B (Intelligent Systems): Day 1 (10.01.2020) at 16:15-17:45, Room: 3202

Session Chair		ТВА			
Session Co	Session Co-Chair TBA				
Paper ID		Title	Room		
73	A Deep	A Deep Convolutional Neural Network Based Small Scale Test-bed for			
	Autono	Autonomous Car			
77	A Comp	A Comparative Sentiment Analysis on Bengali Facebook Posts 3202			
80	A stylo	A stylometric approach for author attribution system using neural 3202			
	networ	network and machine learning classifiers			
97	ANFIS b	ANFIS based authentication performance evaluation for enhancing			
	security	y in Internet of Things			

Session -TR102C (Deep Learning): Day 1 (10.01.2020) (10.01.2020) at 16:15-17:45,

Room: 3204

Session	Chair	To Be Advised (TBA)			
Session Co	-Chair	ТВА			
Paper ID		Title	Room		
43	Blood	Count Prediction for Disease Prognosis based on Combined Multi-	3204		
	modal	Interaction Model with Related Attributes			
58	An Aut	An Automated Model using Deep Convolutional Neural Network for			
	Retinal	Retinal Image Classification to Detect Diabetic Retinopathy			
61	Adapti	Adaptive Feature Selection and Classification of Colon Cancer from Gene			
	Expression Data: An Ensemble Learning Approach				
81	A Boolean network inference from time-series gene expression data using		3204		
	a statis	stical method			

### Session -HCI102D (Human Computer Interface): Day 1 (10.01.2020) at 16:15-17:45,

Room: 3205

Session Chair		ТВА		
Session Co-Chair		ТВА		
Paper ID		Title	Room	
31	Analysi	is of Brain Wave Data Using Neurosky Mindwave Mobile II	3205	
46		A Context-Based Searching Technique by Extraction and Fusion of Metadata of Digital Photos		
65	Mutua	Mutual Context-based Word Prediction for Internet Messenger Chat		
92		of Social Influence in Expediting Online Learning Acceptance: A inary Study on Bangladeshi Learners	3205	

Session -Comvis201A (Computer Vision): Day 2 (11.01.2020) at 11:00-12:30,

**Room: Media Studio** 

Session Chair		ТВА				
Session Co	o-Chair	ТВА				
Paper ID		Title	Room			
124	Discrin	ninant Feature Extraction using Disease Segmentation for automatic	Media			
	Leaf Di	isease Diagnosis	Studio			
178	An App	An Appearance-based Approach to Detect the Wrong-way Movement of				
	Vehicle	Vehicles Using Deep Convolutional Neural Network Studio				
204	Applica	Application of Neuro-GA Hybrids in Sensor Optimization for Structural				
	Health	Health Monitoring				
194	Crimin	Criminal Behavior Analysis for Questionable Vehicle Detection				
			Studio			

Session -Comp201B (Computing): Day 2 (11.01.2020) at 11:00-12:30,

Room: 3202

Session Chair		To Be Advised (TBA)			
Session Co	o-Chair	ТВА			
Paper ID		Title	Room		
50	Private	Cloud Solution for Vehicles in Afghanistan Using GSM	3202		
67	Experir	Experimental data and clock multiplexing technique for implementing single			
	wire sy	nchronous data Bus			
71	CAM -	Categorized Affect Map: Implementation of a Smart Geographic	3202		
	Inform	Information System for Categorizing Places Based on People's Affective			
	Respor	Responses			
211	Locatio	Location, Context and Device aware Framework (LCDF): A unified			
	Frame	work for Mobile Data Management			

Session -IS201C (Intelligent Systems): Day 2 (11.01.2020) at 11:00-12:30,

Room: 3204

Session Chair		ТВА			
Session Co-Chair		ТВА			
Paper ID		Title			
54	Electro	Electronic Opinion Analysis System for Library (E-OASL)			
59	Predicting Behavior Trends among Students Based on Personality Traits 3				
121	Identifi	Identification of Extreme Guilt and Grave Fault in Bengali Language			
131		cation on Educational Performance Evaluation Dataset using Feature ion Approach	3204		

### Session -HCI201D (Human Computer Interface): Day 2 at (11.01.2020) 11:00-12:30,

Room: 3205

Session Chair		ТВА		
Session Co	Session Co-Chair TBA			
Paper ID		Title	Room	
122		Enhancing Smartphone Lock Security using Vibration Enabled Randomly Positioned Numbers		
129	Ball Ga	Ball Game Controller: A Tangible User Interface 3205		
191		Kids Play: A Touch Screen Application for Early Childhood Education of Autistic and Learning-Disabled Children		
209	_	and Implementation of Smart Cyclone Separator Vacuum Cleaner ven by Renewable Energy	3205	

### Session -TR201E (Tech Trends): Day 2 at (11.01.2020) 11:00-12:30, Room: 3206

Session Chair		ТВА			
Session Co-Chair		ТВА			
Paper ID		Title	Room		
83	An Imp	An Improved Class-wise Principal Component Analysis Based Feature			
	Extract	ction Framework for Hyperspectral Image Classification			
109	Player Performance Profiling for Penalty Shootouts in Football Using Video 3				
	Analysi	Analysis			
103	Distributed Disk Store 320				
197	COMPUTATIONAL MODELING FOR PHOTOVOLTAIC THERMAL SYSTEM				

Session ALG202A (Algorithms): Day 2 at (11.01.2020) 13:30-15:00,

**Room: Media Studio** 

Session Chair		ТВА	
Session Co-Chair			
Paper ID		Title	Room
110	Stable	Marriage Algorithm for Student-College Matching with Quota	Media
	Const	Constraints	
157	Antim	Antimagic Labelling of any Perfect Binary Tree	
214	Qualitative Study of Contention-aware Scheduling Algorithm for		Media
	Asymmetric Multicore Processors		Studio
89	An Eff	ective Modification of Play Fair Cipher with Performance Analysis	Media
	using	6X6 Matrix	Studio

Session -TR202B (Technology Trends: IoT): Day 2 at (11.01.2020) 13:30-15:00,

Room: 3202

Session Chair		ТВА		
Session Co-Chair				
Paper ID		Title	Room	
74	Bangla Netwo	a Handwritten Digit Recognition Using Deep Convolutional Neural ork	3202	
160		A Deep Learning Approach to Smart Refrigerator System with the assistance of IOT 3202		
165	Predic	Predicting Bowling Performance in Cricket from Publicly Available Data 3202		
180	An IoT Based Model of a Nitrogen Detection System for Soil Samples			

Session -IS202C (Intelligent Systems): Day 2 at (11.01.2020) 13:30-15:00,

Room: 3204

Session Ch	nair To Be Advised (TBA)			
Session Co-0	Session Co-Chair TBA			
Paper ID	Title	Room		
152	An Empirical Survey on Crowdsourcing-Based Data Management			
	Techniques			
156	Online Product Recommendation System by Using Eye Gaze Data 3			
158	Incorporating Supervised Learning Algorithms with NLP Techniques to			
	Classify Bengali Language Forms			
171	Protection of Sensitive Data in Zero Trust Model	3204		

Session -SE202D (Software Engineering): Day 2 at (11.01.2020) 13:30-15:00,

Room: 3205

Session Chair		ТВА			
Session Co	Session Co-Chair TBA				
Paper ID		Title	Room		
177	A Prop	A Proposed Model for Bengali Named Entity Recognition Using Maximum			
	Entrop	Entropy Markov Model Incorporated with Rich Linguistic Feature Set			
145	An Inn	An Innovative Model for Program Management 3205			
155	Analyzing Web Application Vulnerabilities: An Empirical Study on E-		3205		
	Commerce Sector in Bangladesh				
181	Autom	Automated Self Driving Car Following Lane with Emergency Braking System			

Session -IS202E (Intelligent Systems): Day 2 at (11.01.2020) 13:30-15:00,

Room: 3206

Session Chair		ТВА		
Session Co-Chair		ТВА		
Paper ID		Title	Room	
170	Credit (	Credit Card Fraud Detection using Data Pre-processing on Imbalanced Data -		
	both O	both Oversampling and Under sampling		
104	Residual Net for Car Detection with spatial transformation 32			
193	Combined Item Sets Generation using Modified Apriori Algorithm 320			
199	A Machine Learning Approach to Identify the Correlation and Association			
	among the Students' Educational Behavior			

## Session -TR301A (Tech Trends): Day 3 at (12.01.2020) 09:00-10:30, Room: Media Studio

Session Chair		To Be Advised (TBA)			
Session Co	Session Co-Chair TBA				
Paper ID		Title	Room		
182	A Deep	A Deep Learning Based Approach on Categorization of Tea Leaf			
		Studio			
196	An Effic	n Efficient Approach for Prediction of Essential Protein from PPI Network			
			Studio		
144	A Smart and Integrated Surface Water Monitor System Architecture:				
	Bangla	Bangladesh Perspective			

# Session -NC301B (Networking and Communications): Day 3 at (12.01.2020) 09:00-10:30, Room: 3202

Session	Chair TBA			
Session Co-Chair TBA				
Paper ID	Title	Room		
87	Naive Bayes based Trust Management Model in Wireless Body Area Networks	3202		
116	The Morphology of Life Events: A River metaphor 3202			
120	Automated Parking System using Graph Algorithm 32			
179	Performance Analysis of AODV, OLSR, DSDV Routing Protocols in MANET Under Black Hole Attack			

### Session -TR301C (Tech Trends): Day 3 at (12.01.2020) 09:00-10:30, Room: 3204

Session Chair		ТВА		
Session Co-Chair		ТВА		
Paper ID		Title	Room	
151	A Rob	A Robust Method for Lane Detection under Adverse Weather and		
	Illumir	Illumination Conditions Using Convolutional Neural Network		
172	Synthe	Synthetic Samples Generation for Imbalance Class Distribution with LSTM		
	Recurrent Neural Networks			
173	Blocko	Blockchain based Fertilizer Distribution System: Bangladesh Perspective		
215	A Prag	A Pragmatical Study on Blockchain Empowered Decentralized Application		
	Devel	Development Platforms		