DEPARTMENT OF ELECTRONICS AND COMMUNICATION

NEWSLETTER

VISION

To create a centre for imparting technical education of international standards and conduct research at the cutting edge of electronics & communication technology to meet the current and future challenges of technological development.

MISSION

To create technical manpower for meeting the current and future demands of industry and academia: to recognize education and research in close interaction with electronics & communication & related industry with emphasis on the development of leadership qualities in the young men and women entering the portals of the institute with sensitivity to social development and eye for opportunities for growth in the international perspective.

Scientists investigate which already is; engineers create that which has never been.

-                                      -Albert Einstein

Research Publications

G. Saxena, C. Sahu and A. M. Joshi ,"Detection and Transmission of pH From Food Substances Using IoT" iSES 2021 by IEEE at MNIT Jaipur / / 2021

J. S. Parmar, A. Bhat, N. Shafi, A. Porwal, C. Periasamy and C. Sahu ,"Analysis of Current Drift in Al2O3 Gated Junctionless pH Sensitive Field Effect Transistor" iSES 2021 by IEEE at MNIT Jaipur / / 2021

A. Porwal, C. Sahu and C. Periasamy ,"Comparative Analog Analysis of Si, Ge and Si0.7Ge0.3 Channel Based DG-JLFET" iSES 2021 by IEEE at MNIT Jaipur / / 2021

D. K. Kotary, S. J. Nanda, R. Gupta ,"A many-objective whale optimization algorithm to perform robust distributed clustering in wireless sensor network" , Applied Soft Computing, Elsevier Volume :1 / 107650 / 2021 ISBN: ISSN 1568-4946

R. Gupta and S. J. Nanda ,"Cloud detection in satellite images with classical and deep neural network approach: A review" , Multimedia Tools and Applications, Springer Volume :1 / 1-25 / 2022 ISBN: ISSN 1573-7721

Nawaz Shafi, Aasif Mohamad Bhat, Jaydeep Singh Parmar, Chitrakant Sahu and C. Periasamy ,"Biologically Sensitive FETs: Holistic Design Considerations from Simulation, Modeling and Fabrication Perspectives" , Silicon Volume :1 / 1-25 / 2022

R. Gupta, S. J. Nanda ,"Solving Time Varying Many-objective TSP with Dynamic θ-NSGA-III Algorithm" , Applied Soft Computing, Elsevier Volume :1 / 1-32 / 2022 ISBN: ISSN: 1568-4946

D. Deb, R. Goswami, R. Baruah, R. Saha and K. Kandpal ,"Role of gate electrode in influencing interface trap sensitivity in SOI tunnel FETs" , Journal of Micromechanics and Microengineering Volume :32 / 044006 / 2022

Gaurav Sharma, Lava Bhargava, V. Kumar ,"A composite System C-UVM abstract optimal path selection verification architecture for complex designs" , Microelectronics Reliability Volume :131 / 114508 / 2022 ISBN: 0026-2714

Nawaz Shafi, Aasif Mohamad Bhat, Jaydeep Singh Parmar, Chitrakant Sahu and C. Periasamy ,"Biologically Sensitive FETs: Holistic Design Considerations from Simulation, Modeling and Fabrication Perspectives" , Silicon Volume :1 / 1-25 / 2022

Ritu Poonia, Aasif Mohammad Bhat, C Periasamy, Chitrakant Sahu ,"Performance Analysis of MOS-HEMT as a Biosensor: A Dielectric Modulation Approach" , Silicon Volume :1 / 1-8 / 2022

N Shafi, A M Bhatt C Sahu, C Periasamy ,"Effect of Geometry and Temperature Variations on Sensitivity and Linearity of Junctionless pH Sensing FET: An Experimental Study (Accepted for Publication)" , Superlattices and Microstructures Volume :1 / 1-8 / 2022

R. Gupta, S. J. Nanda ,"Objective Reduction in Many-Objective Optimization with Social Spider Algorithm for Cloud Detection in Satellite Images" , Soft Computing, Springer Volume :5 / 1-24 / 2022 ISBN: ISSN 1432-7643

Gupta, Manjari, Lava Bhargava, and S. Indu ,"Deep neural network learning for power limited heterogeneous system with workload classification" , Computing Volume :104 / 95-122 / 2022 ISBN: https://doi.org/1

Saha R., Sahu C. ,"Influence of dielectric material near tunnel junction on analog/RF and linearity figure of merits in hetero dielectric (HG) TFET: A detailed study" , International Journal of RF and Microwave Computer-Aided Engineering Volume :1 / 1-8 / 2022

Vaikuntapu, Ramakrishna, Vineet Sahula, and Lava Bhargava ,"Variability aware Golden Reference Free methodology for Hardware Trojan Detection Using Robust Delay Analysis" , arXiv preprint arXiv:2201.09668 Volume :10 / 1-16 / 2022

"Book Chapter" A Neural Network Model to Estimate Parameters of DBSCAN for Flood Image Segmentation ISBN:ISBN 978-981-16-6893-7 published by - Algorithms for Intelligent Systems, Springer Year:2022 Authors- R. Verma, S. J. Nanda

National Workshop on Designing With FPGAs (Intel) at MNIT Jaipur, Jaipur, India from 12-03-2022 to 17-03-2022.

National Workshop on One Week Online Global Winter FDP on "Machine Learning Application in Signal Processing and Communication Engineering" at MNIT , Jaipur, India from 03-01-2022 to 08-01-2022.

	Projects				
Sr. No.	Project Director	Title of the Project	Funding Agency	Amount (Lacs)	Duration
1	Dr. D. Boolchandani	FIST-2019	DST	125.00	2020-2025
2	Dr. Deepak Bharti	Green Template-assisted, Flexible and Skin-attachable Sensor for Non-invasive and Non-enzymatic Glucose Detection using Human Sweat and Saliva - INNOVATE	SRG scheme by SERB	29.37	2020-2022
3	Dr. D. Boolchandani	Charge pump PLL frequency synthesizer design	ISRO	21.35	2021-2023

Faculty Name:
Prof. Ghanshyam Singh

Award Name:
Seceretary IEEE (PHO36-Rajasthan)

Activity: To coordinate activities for Delhi Section Chapter, PHO36-Rajasthan (Given By-IEEE (2021)

PLACEMENT

UG Placement Stats 2021-2022

B. Tech	Maximum Package (LPA)	Min Package (LPA)	Average Package (LPA)	Percentage Placed Students
	60	6	16.19	96.6

PG Placement Stats 2021-2022

M. Tech	Maximum Package (LPA)	Min Package (LPA)	Average Package (LPA)	Percentage Placed Students
	22.03	5.5	10.48	65

Internship Stats 2021-2022

Program	No. of Students Got Internship	Maximum Stipend	Minimum Stipend
UG	27	100000	15000
PG	30	50000	25000

TEXAS INSTRUMENTS · Apple · Walmart Save money. Live better. · Arcesium · Deloitte. · Fidelity · BHARAT ELECTRONICS QUALITY. TECHNOLOGY. INNOVATION. · ORACLE · ERICSSON · amazon · Google · Qualcomm · GAP · Capgemini CONSULTING.TECHNOLOGY.OUTSOURCING · Goldman Sachs · JPMorganChase · SAMSUNG

The Article — Turn Any Surface Into a Touchscreen

Since the advent of the smartphone, the use of touch to interact with digital content has become ubiquitous. So far though, touchscreens have mainly been limited to pocket-sized devices. Now researchers have come up with a low-cost way to turn any surface into a touchscreen, opening a host of new possibilities for interacting with the digital world.

Projected content · Hand except finger · CONTINUE? · TOUCH TO SELECT · YES · NO · Hand(not touch) · Finger (touches)
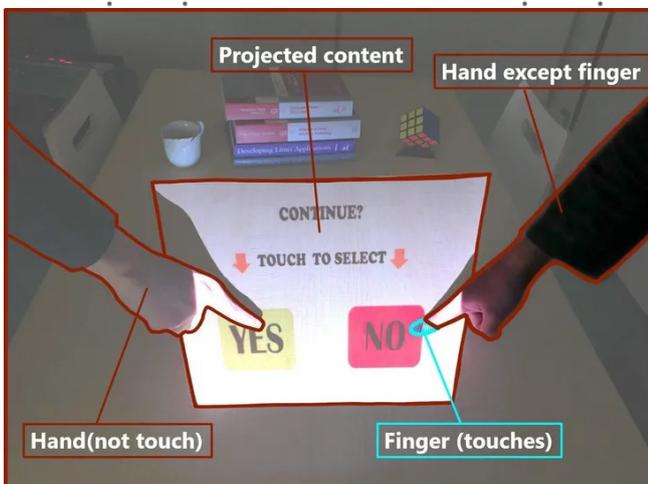
The system only requires a single camera attached just below the projector, and the system's developers say it works well no matter what you want to project.

The key to the approach is a clever optical trick that ensures only movements just above the surface of the projection are detected. This makes it possible to register users fingers as they press buttons, while ignoring everything else in the camera's field of view. Its designers hope the technology could be used to create large, interactive displays almost anywhere.

Source: IEEE Spectrum

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