



DIGINET ONLINE INDIA PVT LIMITED  
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## 2016-2017 VLSI PROJECTS LIST

S.NO	PROJECT TITLE	VERTICAL
1.	A FULLY DIGITAL FRONT-END ARCHITECTURE FOR ECG ACQUISITION SYSTEM WITH 0.5 V SUPPLY	VLSI
2.	LOW-COST HIGH-PERFORMANCE VLSI ARCHITECTURE FOR MONTGOMERY MODULAR MULTIPLICATION	VLSI
3.	RF POWER GATING: A LOW-POWER TECHNIQUE FOR ADAPTIVE RADIOS	VLSI
4.	LOW-POWER ECG-BASED PROCESSOR FOR PREDICTING VENTRICULAR ARRHYTHMIA	VLSI
5.	A NEW PARALLEL VLSI ARCHITECTURE FOR REAL-TIME ELECTRICAL CAPACITANCE TOMOGRAPHY	VLSI
6.	LOW-POWER FPGA DESIGN USING MEMOIZATION-BASED APPROXIMATE COMPUTING	VLSI
7.	LOW-POWER SPLIT-RADIX FFT PROCESSORS USING RADIX-2 BUTTERFLY UNITS	VLSI
8.	A HIGH-SPEED FPGA IMPLEMENTATION OF AN RSD-BASED ECC PROCESSOR	VLSI
9.	HIGH-SPEED AND ENERGY-EFFICIENT CARRY SKIP ADDER OPERATING UNDER A WIDE RANGE OF SUPPLY VOLTAGE LEVELS	VLSI



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10.	<b>A 0.52/1 V FAST LOCK-IN ADPLL FOR SUPPORTING DYNAMIC VOLTAGE AND FREQUENCY SCALING</b>	<b>VLSI</b>
11.	<b>CODE COMPRESSION FOR EMBEDDED SYSTEMS USING SEPARATED DICTIONARIES</b>	<b>VLSI</b>
12.	<b>A DYNAMICALLY RECONFIGURABLE MULTI-ASIP ARCHITECTURE FOR MULTI-STANDARD AND MULTIMODE TURBO DECODING</b>	<b>VLSI</b>
13.	<b>DESIGN AND IMPLEMENTATION OF HIGH-SPEED ALL-PASS TRANSFORMATION-BASED VARIABLE DIGITAL FILTERS BY BREAKING THE DEPENDENCE OF OPERATING FREQUENCY ON FILTER ORDER</b>	<b>VLSI</b>
14.	<b>A MIXED-DECIMATION MDF ARCHITECTURE FOR RADIX-2K PARALLEL FFT</b>	<b>VLSI</b>
15.	<b>ALGORITHM AND ARCHITECTURE OF CONFIGURABLE JOINT DETECTION AND DECODING FOR MIMO WIRELESS COMMUNICATIONS WITH CONVOLUTION CODES</b>	<b>VLSI</b>
16.	<b>ONE-CYCLE CORRECTION OF TIMING ERRORS IN PIPELINES WITH STANDARD CLOCKED ELEMENTS</b>	<b>VLSI</b>
17.	<b>HARDWARE AND ENERGY-EFFICIENT STOCHASTIC LU DECOMPOSITION SCHEME FOR MIMO RECEIVERS</b>	<b>VLSI</b>
18.	<b>HYBRID LUT/MULTIPLEXER FPGA LOGIC ARCHITECTURES</b>	<b>VLSI</b>
19.	<b>A 520K (18 900, 17 010) ARRAY DISPERSION LDPC DECODER ARCHITECTURES FOR NAND-FLASH MEMORY</b>	<b>VLSI</b>
20.	<b>IMPLEMENTING MINIMUM-ENERGY-POINT SYSTEMS WITH ADAPTIVE LOGIC</b>	<b>VLSI</b>



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21.	<b>HIGH-PERFORMANCE PIPELINED ARCHITECTURE OF ELLIPTIC CURVE SCALAR MULTIPLICATION OVER GF(2M)</b>	VLSI
22.	<b>HIGH-PERFORMANCE NB-LDPC DECODER WITH REDUCTION OF MESSAGE EXCHANGE</b>	VLSI
23.	<b>LUT OPTIMIZATION FOR DISTRIBUTED ARITHMETIC-BASED BLOCK LEAST MEAN SQUARE ADAPTIVE FILTER</b>	VLSI
24.	<b>GRAPH-BASED TRANSISTOR NETWORK GENERATION METHOD FOR SUPERGATE DESIGN</b>	VLSI
25.	<b>FLEXIBLE DSP ACCELERATOR ARCHITECTURE EXPLOITING CARRY-SAVE ARITHMETIC</b>	VLSI
26.	<b>A CELLULAR NETWORK ARCHITECTURE WITH POLYNOMIAL WEIGHT FUNCTIONS</b>	VLSI
27.	<b>A HIGH-PERFORMANCE FIR FILTER ARCHITECTURE FOR FIXED AND RECONFIGURABLE APPLICATIONS</b>	VLSI
28.	<b>FAULT TOLERANT PARALLEL FFTS USING ERROR CORRECTION CODES AND PARSEVAL CHECKS</b>	VLSI
29.	<b>EXPLOITING INTRACELL BIT-ERROR CHARACTERISTICS TO IMPROVE MIN-SUM LDPC DECODING FOR MLC NAND FLASH-BASED STORAGE IN MOBILE DEVICE</b>	VLSI
30.	<b>UNEQUAL-ERROR-PROTECTION ERROR CORRECTION CODES FOR THE EMBEDDED MEMORIES IN DIGITAL SIGNAL PROCESSORS</b>	VLSI
31.	<b>A HIGH THROUGHPUT LIST DECODER ARCHITECTURE FOR POLAR CODES</b>	VLSI



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32.	<b>A NORMAL I/O ORDER RADIX-2 FFT ARCHITECTURE TO PROCESS TWIN DATA STREAMS FOR MIMO</b>	<b>VLSI</b>
33.	<b>DESIGN AND FPGA IMPLEMENTATION OF A RECONFIGURABLE 1024-CHANNEL CHANNELIZATION ARCHITECTURE FOR SDR APPLICATION</b>	<b>VLSI</b>
34.	<b>INPUT-BASED DYNAMIC RECONFIGURATION OF APPROXIMATE ARITHMETIC UNITS FOR VIDEO ENCODING</b>	<b>VLSI</b>
35.	<b>A CONFIGURABLE PARALLEL HARDWARE ARCHITECTURE FOR EFFICIENT INTEGRAL HISTOGRAM IMAGE COMPUTING</b>	<b>VLSI</b>
36.	<b>A NEW BINARY-HALVED CLUSTERING METHOD AND ERT PROCESSOR FOR ASSR SYSTEM</b>	<b>VLSI</b>
37.	<b>THE VLSI ARCHITECTURE OF A HIGHLY EFFICIENT DE-BLOCKING FILTER FOR HEVC SYSTEMS</b>	<b>VLSI</b>
38.	<b>LOW-POWER SYSTEM FOR DETECTION OF SYMPTOMATIC PATTERNS IN AUDIO BIOLOGICAL SIGNALS</b>	<b>VLSI</b>
39.	<b>IN-FIELD TEST FOR PERMANENT FAULTS IN FIFO BUFFERS OF NOC ROUTERS</b>	<b>VLSI</b>
40.	<b>SOURCE CODE ERROR DETECTION IN HIGH-LEVEL SYNTHESIS FUNCTIONAL VERIFICATION</b>	<b>VLSI</b>
41.	<b>A SINGLE-ENDED WITH DYNAMIC FEEDBACK CONTROL 8T SUBTHRESHOLD SRAM CELL</b>	<b>VLSI</b>
42.	<b>OTA-BASED LOGARITHMIC CIRCUIT FOR ARBITRARY INPUT SIGNAL AND ITS APPLICATION</b>	<b>VLSI</b>



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43.	<b>A ROBUST ENERGY/AREA-EFFICIENT FORWARDED-CLOCK RECEIVER WITH ALL-DIGITAL CLOCK AND DATA RECOVERY IN 28-NM CMOS FOR HIGH-DENSITY INTERCONNECTS</b>	VLSI
44.	<b>FULL-SWING LOCAL BITLINE SRAM ARCHITECTURE BASED ON THE 22-NM FINFET TECHNOLOGY FOR LOW-VOLTAGE OPERATION</b>	VLSI
45.	<b>A 0.1-3.5-GHZ DUTY-CYCLE MEASUREMENT AND CORRECTION TECHNIQUE IN 130-NM CMOS</b>	VLSI
46.	<b>A LOW-POWER ROBUST EASILY CASCADED PENTAMTJ-BASED COMBINATIONAL AND SEQUENTIAL CIRCUITS</b>	VLSI
47.	<b>LOW-POWER VARIATION-TOLERANT NONVOLATILE LOOKUP TABLE DESIGN</b>	VLSI
48.	<b>LOW-ENERGY POWER-ON-RESET CIRCUIT FOR DUAL SUPPLY SRAM</b>	VLSI
49.	<b>FREQUENCY-BOOST JITTER REDUCTION FOR VOLTAGE-CONTROLLED RING OSCILLATORS</b>	VLSI
50.	<b>HIGH-SPEED, LOW-POWER, AND HIGHLY RELIABLE FREQUENCY MULTIPLIER FOR DLL-BASED CLOCK GENERATOR</b>	VLSI
51.	<b>A SYSTEMATIC DESIGN METHODOLOGY OF ASYNCHRONOUS SAR AD</b>	VLSI
52.	<b>READ BIT LINE SENSING AND FAST LOCAL WRITE-BACK TECHNIQUES IN HIERARCHICAL BITLINE ARCHITECTURE FOR ULTRALOW-VOLTAGE SRAMS</b>	VLSI
53.	<b>ONLINE MEASUREMENT OF DEGRADATION DUE TO BIAS TEMPERATURE INSTABILITY IN SRAMS</b>	VLSI



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54.	<b>INCORPORATING PROCESS VARIATIONS INTO SRAM ELECTROMIGRATION RELIABILITY ASSESSMENT USING ATOMIC FLUX DIVERGENCE</b>	<b>VLSI</b>
55.	<b>EMDBAM: A LOW-POWER DUAL BIT ASSOCIATIVE MEMORY WITH MATCH ERROR AND MASK CONTROL</b>	<b>VLSI</b>
56.	<b>A SINGLE-STAGE LOW-DROPOUT REGULATOR WITH A WIDE DYNAMIC RANGE FOR GENERIC APPLICATIONS</b>	<b>VLSI</b>
57.	<b>GLITCH ENERGY REDUCTION AND SFDR ENHANCEMENT TECHNIQUES FOR LOW-POWER BINARY-WEIGHTED CURRENT-STEERING DAC</b>	<b>VLSI</b>
58.	<b>INTEGRATED FLOATING-GATE PROGRAMMING ENVIRONMENT FOR SYSTEM-LEVEL ICS</b>	<b>VLSI</b>
59.	<b>DESIGN OF SILICON PHOTONIC INTERCONNECT ICS IN 65-NM CMOS TECHNOLOGY</b>	<b>VLSI</b>
60.	<b>TEST ESCAPES OF STUCK-OPEN FAULTS CAUSED BY PARASITIC CAPACITANCES AND LEAKAGE CURRENTS</b>	<b>VLSI</b>
61.	<b>STATISTICAL FRAMEWORK AND BUILT-IN SELF SPEED-BINNING SYSTEM FOR SPEED BINNING USING ON-CHIP RING OSCILLATORS</b>	<b>VLSI</b>
62.	<b>A LOW-POWER BROAD-BANDWIDTH NOISE CANCELLATION VLSI CIRCUIT DESIGN FOR IN-EAR HEADPHONES</b>	<b>VLSI</b>
63.	<b>A 3-D CPU-FPGA-DRAM HYBRID ARCHITECTURE FOR LOW-POWER COMPUTATION</b>	<b>VLSI</b>
64.	<b>LOW-POWER/COST RNS COMPARISON VIA PARTITIONING THE DYNAMIC RANGE</b>	<b>VLSI</b>



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65.	DESIGN OF A NETWORK OF DIGITAL SENSOR MACROS FOR EXTRACTING POWER SUPPLY NOISE PROFILE IN SOCS	VLSI
66.	UNDERSTANDING THE RELATION BETWEEN THE PERFORMANCE AND RELIABILITY OF NAND FLASH/SCM HYBRID SOLID-STATE DRIVE	VLSI
67.	FCUDA-NOC : A SCALABLE AND EFFICIENT NETWORK-ON-CHIP IMPLEMENTATION FOR THE CUDA-TO-FPGA FLOW	VLSI
68.	OPTIMIZED BUILT-IN SELF-REPAIR FOR MULTIPLE MEMORIES	VLSI
69.	MEASURING IMPROVEMENT WHEN USING HUB FORMATS TO IMPLEMENT FLOATING-POINT SYSTEMS UNDER ROUND-TO-NEAREST	VLSI
70.	FLEXIBLE ECC MANAGEMENT FOR LOW-COST TRANSIENT ERROR PROTECTION OF LAST-LEVEL CACHES	VLSI
71.	SOURCE CODING AND PREEMPHASIS FOR DOUBLE-EDGED PULSE WIDTH MODULATION SERIAL COMMUNICATION	VLSI
72.	A HIGH-THROUGHPUT HARDWARE DESIGN OF A ONE-DIMENSIONAL SPIHT ALGORITHM	VLSI
73.	NETWORK-ON-CHIP FOR TURBO DECODERS	VLSI
74.	ENHANCED WEAR-RATE LEVELING FOR PRAM LIFETIME IMPROVEMENT CONSIDERING PROCESS VARIATION	VLSI
75.	SPECULATIVE LOOK AHEAD FOR ENERGY-EFFICIENT MICROPROCESSORS	VLSI



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76.	<b>A REAL-TIME NETWORK-ON-CHIP ARCHITECTURE WITH AN EFFICIENT GALS IMPLEMENTATION</b>	<b>VLSI</b>
77.	<b>EFFICIENT DYNAMIC VIRTUAL CHANNEL ORGANIZATION AND ARCHITECTURE FOR NOC SYSTEMS</b>	<b>VLSI</b>
78.	<b>EFFICIENT SYNCHRONIZATION FOR DISTRIBUTED EMBEDDED MULTIPROCESSORS</b>	<b>VLSI</b>
79.	<b>NAND FLASH MEMORY WITH MULTIPLE PAGE SIZES FOR HIGH-PERFORMANCE STORAGE DEVICES</b>	<b>VLSI</b>
80.	<b>A PERFORMANCE DEGRADATION TOLERABLE CACHE DESIGN BY EXPLOITING MEMORY HIERARCHIES</b>	<b>VLSI</b>
81.	<b>KNOWLEDGE-BASED NEURAL NETWORK MODEL FOR FPGA LOGICAL ARCHITECTURE DEVELOPMENT</b>	<b>VLSI</b>
82.	<b>ENERGY-EFFICIENT FLOATING-POINT MFCC EXTRACTION ARCHITECTURE FOR SPEECH RECOGNITION SYSTEMS</b>	<b>VLSI</b>
83.	<b>A NEW OPTIMAL ALGORITHM FOR ENERGY SAVING IN EMBEDDED SYSTEM WITH MULTIPLE SLEEP MODES</b>	<b>VLSI</b>
84.	<b>A FAST FAULT-TOLERANT ARCHITECTURE FOR SAUVOLA LOCAL IMAGE THRESHOLDING ALGORITHM USING STOCHASTIC COMPUTING</b>	<b>VLSI</b>
85.	<b>EFFICIENCY ENABLERS OF LIGHTWEIGHT SDR FOR MIMO BASEBAND PROCESSING</b>	<b>VLSI</b>
86.	<b>A NOVEL QUANTUM-DOT CELLULAR AUTOMATA X-BIT ×32-BIT SRAM</b>	<b>VLSI</b>





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87.	<b>GPU-ACCELERATED PARALLEL SPARSE LU FACTORIZATION METHOD FOR FAST CIRCUIT ANALYSIS</b>	VLSI
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89.	<b>AN ALL-DIGITAL APPROACH TO SUPPLY NOISE CANCELLATION IN DIGITAL PHASE-LOCKED LOOP</b>	VLSI
90.	<b>WRITE BUFFER-ORIENTED ENERGY REDUCTION IN THE L1 DATA CACHE FOR EMBEDDED SYSTEMS</b>	VLSI
91.	<b>PROCESS VARIATION DELAY AND CONGESTION AWARE ROUTING ALGORITHM FOR ASYNCHRONOUS NOC DESIGN</b>	VLSI
92.	<b>TOWARD SOLVING MULTICHANNEL RF-SOC INTEGRATION ISSUES THROUGH DIGITAL FRACTIONAL DIVISION</b>	VLSI
93.	<b>ERROR RESILIENT AND ENERGY EFFICIENT MRF MESSAGE-PASSING-BASED STEREO MATCHING</b>	VLSI
94.	<b>FLOATING-POINT BUTTERFLY ARCHITECTURE BASED ON BINARY SIGNED-DIGIT REPRESENTATION</b>	VLSI
95.	<b>ON EFFICIENT RETIMING OF FIXED-POINT CIRCUITS</b>	VLSI
96.	<b>A FAST-ACQUISITION ALL-DIGITAL DELAY-LOCKED LOOP USING A STARTING-BIT PREDICTION ALGORITHM FOR THE SUCCESSIVE-APPROXIMATION REGISTER</b>	VLSI
97.	<b>DESIGN OF MODIFIED SECOND-ORDER FREQUENCY TRANSFORMATIONS BASED VARIABLE DIGITAL FILTERS WITH LARGE CUTOFF FREQUENCY RANGE AND IMPROVED TRANSITION BAND CHARACTERISTICS</b>	VLSI



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98.	<b>FIXED-POINT COMPUTING ELEMENT DESIGN FOR TRANSCENDENTAL FUNCTIONS AND PRIMARY OPERATIONS IN SPEECH PROCESSING</b>	<b>VLSI</b>
99.	<b>TRIGGER-CENTRIC LOOP MAPPING ON CGRAS</b>	<b>VLSI</b>
100.	<b>AREA-AWARE CACHE UPDATE TRACKERS FOR POST SILICON VALIDATION</b>	<b>VLSI</b>