

D.AJAY KUMAR

Dr No.5-57/2, Challavari street,Velam pet ,pentapadu – 534166 .
CELL (91) 8121209554 • E-MAIL ajaybabuji@gmail.com



PROFILE

Energetic and Enthusiastic with keen research interest. Over 10 years of experience in handling wide range of subjects and also administrative duties. Keen in learning & regularly updating knowledge by teaching newer subjects and guiding student projects in latest areas.

1. Educational Qualifications

| Qualification | University/Board | Name of the College,place | Specialization | Year of Passing | Division/ Class | % of Marks |
|---------------|--|---|-----------------|-----------------|------------------------------|------------|
| X Class | Board of Secondary Education | S.T.V.N.H.High School, Pentapadu | | 1999 | First Class | 61.5 % |
| Diploma | Board of Technical Education, AP | M.R.K. Polytechnic,Veeravasaram | DECE | 2002 | First Class | 65.0% |
| UG | JNTU,Hyderabad | BVCITS , Batlapalem | ECE | 2006 | First Class | 60.5% |
| PG | Anna University,Coimbatore | Bannari amman institute of technology, Sathyamagalam, | VLSI Desin | 2009 | First Class with Distinction | 81.3% |
| Ph. D | GITAM Deemed university, Visakhapatnam | GITAM Institute of Technology, Visakhapatnam | Device modeling | -- | -- | -- |
| Others | | | | | | |

2. **Project/Thesis:** UG: Indian Railway security & control system.
PG: Double Data Rate SDRAM Controller.
PhD: Hybrid model device.

3. Teaching /Industry Experience:

| S No | Designation | Organization | Period | | Total Exp. Years and Months | Nature of Employment | Type of service Govt. Aided/ Un Aided/ Private/ recognized |
|------|-------------------|---------------------------------------|------------|------------|-----------------------------|----------------------|--|
| | | | From | To | | | |
| 1. | Engineer Trainee. | Oil Country Tubular Ltd , Narketpally | 25-08-2006 | 15-03-2007 | 6 months | Industry . | Private |

| | | | | | | | |
|----|---------------------|---|------------|-----------|----------|----------|---------|
| 2 | Assistant Professor | Akkula Gopaya College of Engineering, Eluru | | | 9 months | TEACHING | Private |
| 3. | Assistant Professor | Sir C.R.Reddy College of Engineering, Eluru | 19-06-2010 | Till Date | 11 | TEACHING | Private |

4. **Total Experience:** Teaching: 11 years
Industry : 6 months
Research : 1 year

Any other Distinctions/Achievements:

1. Ratified as Assistant Professor from Andhra University
2. Ratified as Assistant Professor from JNT University, Kakinada.

5. SUBJECTS TAUGHT

VLSI Design & Embedded system.
Microprocessors
TV and Satellite Communication
Probability theory & Random process.
Electronic device & circuits.
Antenna & Wave propagation.
Ethics & Moral values.
Management Science
Management & organization behavior.
System model & simulation.
VLSI design techniques.
Satellite communication & propagation array.
Digital system testing & testable design.
VHDL modeling of digital systems.
Wavelet Transforms and Applications

6. STUDENT PROJECTS GUIDED (B Tech & M. Tech)

VLSI
Digital image Processing
Digital Signal Processing
Device modeling.

7. Research Experience:

(a) Research Papers Published in Journals

| S No | Author (s) Name | Title of the Research Paper | National/International | Year of Publication | Name of the Journal | Vol. | Issue No | Pages (PP) |
|------|---|---|------------------------|---------------------|---|---------|---------------|-------------|
| 1 | Ajaykumar Dharmireddy , Dr. Avinash Sharma , M.Sushanth Babu , Sreenivasa Rao Ijjada | SS<30mV/dec; Hybrid Tunnel FET 3D Analytical Model for IoT applications | International | 2020 | Materials Today: Proceedings, (Elsevier – Article) | | | |
| 2 | Ajay Kumar Dharmireddy, Sreenivasa Rao Ijjada, Chaithanya Mannepalli, K Shashidhar and Chakradhar Adupa | A Study of Land Terrain Classification Using Polarimetric SAR Images Based on DTC | International | 2020 | Bioscience Biotechnology Research Communications ,(Web of Science) | Vol. 13 | Issue spl - 2 | 59-66 |
| 3 | Ajaykumar Dharmireddy, Dr sreenivasa Rao Ijjada, Dr P.H.S.Tejomurthy | “ Performance analysis of Tri-Gate SOI FINFET Structure with various fin heights using TCAD Simulation” | International | 2019 | Journal of Advanced Research in Dynamical and Control Systems (JARDCS) scopus | Vol. 11 | Issue spl - 2 | 1291-1297 |
| 4 | Ajay kumar Dharmireddy, Anjani Devi N, Dr.Sreenivasa Rao Ijjada | “Performance Analysis of Double Gate Hetero Junction Tunnel FET” | International | 2019 | IJITEE(scopus), ISSN: 2278-3075 | Vol.9 | Issue-2S3 | |
| 5 | Ajay kumar Dharmireddy, Anjani Devi N, Dr.Sreenivasa Rao Ijjada | Performance Characteristics of TFET over MOSFET, DGMOSFET and FinFET | International | 2019 | TEST Engineering & Management (scopus), ISSN: 0193 - 4120 | | | 6164 - 6170 |
| 6 | Dharmireddy Ajay Kumar ,P.V.T.Lokesh Kumar, P.H.S Tejomurthy | “Design of A NEMS Cantilever Sensor for Explosive Detection” | International | 2019 | International Journal of Engineering and Advanced Technology (IJEAT) (scopus),ISSN: 2249 – 8958 | Vol.8 | Issue-6S2 | 912-916 |
| 7. | D.Ajay kumar , P.Gopi Krishna K.srinivasa Rao P,Hareesh | Implementation of Bi-Directional Blue-Fi Gate Way in IOT Environment | International | 2018 | IJSSIS(Scopus) | Vol.7 | Issue-2 | 97-102 |

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|-----|--|---|---------------|------|---|----------|----------------|---------|
| 8 | D.Ajay kumar, Sathyanarayana, Dr.Sreenivasa Rao Ijjada | Low energy utilization of 14nm FinFET technology 6T-SRAM style | International | 2018 | JETIR | Vol.5 | Issue-12 | 40-45 |
| 9. | D. Ajay Kumar, V. Lakshma Reddy , H. Sudhakar | Realization of Redundant Binary Multiplier with Modified Partial Product Generator Using Verilog | International | 2017 | IJSRCSEIT, ISSN : 2456-3307 | Vol.2 | Issue-6 | 924-929 |
| 10. | D.Ajay Kumar, D.Sateesh Kumar, | Implementation of content addressable memory based on sparse cluster network using load store queue technology | International | 2016 | International Journal Of Professional Engineering Studies(IJPRE). ISSN:4-26 | Vol.4, | Issue.4 | 187-193 |
| 11. | D.Ajay Kumar, D.Govardhan Reddy, | Design of High Throughput AXI Compliant DDR3 Controller | International | 2015 | International Journal of Advance Electrical and Electronics Engineering (IJAEED) | Volume-4 | Issue-2 | 31-37 |
| 12. | Ajay Kumar. D Sathi Babu. A, | Performance Analysis Of Orthogonal Space Time Block Code And Transmission Antenna Selection With Multi User Diversity | International | 2014 | International Journal of Computer Science and Mobile Computing | Vol.3, | Issue.8 | 361-366 |
| 13 | D. Ajay Kumar, K. Kirankumar , | DESIGNE OF ALU USING REVERSIBLE LOGIC GATES | International | 2014 | International Journal For Technological Research In Engineering | Vol.2, | Issue.3 | 162-165 |
| 14 | D. Ajay Kumar, J Mohan Prithvi | Control Module Design for ADC Based on FPGA | International | 2014 | International Journal of Electronics & Communication Technology, ISSN : 2230-7109 | Vol. 5, | Issue Spl - 3, | 35-36 |
| 15. | D.Ajay Kumar, K. J. Silva Lorraine, Ch.V.Naga Bhaskar, K.Rosili Sipora | Analysis of Near-Far Effect and Multipath Mitigation Techniques for Pseudolite Based Positioning Applications | International | 2014 | International Journal of Electronics & Communication Technology, ISSN : 2230-7109 | Vol. 5, | Issue Spl - 3, | 37-41 |
| 16. | D. Ajay kumar., A.Jagadeesh. | Cellular network optimization using multi HOP dynamic channel assignment | International | 2012 | International Journal of Advanced Research in Computer Engineering & Technology (IJARCET) | Vol.1, | Issue.3 | 27-33 |
| 17. | D. Ajay kumar., Ch.Spandana | Analysis of optical soliton propagation in birefringent fibers | International | 2011 | International Journal of management, IT and engineering (IJMIE). ISSN:2249-0558 | Vol.1, | Issue.6 | 200-213 |

(b) Research Papers Published in Conferences

| S.No | Title of paper | Name of Conference | Date | Place |
|------|--|---|--|---|
| 1. | A perspective review of challenges on FinFET technology in low power & High speed design. | 5 th international conference on Micro-electronics, Electromagnetics and Tele communications (ICMEET). | 6 th , 7 th Dec 2019 | Raghu institute of technology, Visakhapatnam |
| 2. | Performance analysis of Tri-gate SOI FinFET structure with various Fin height using TCAD simulation. | international conference on Advanced communication technologies (ICACT) | 26 th , 27 th April 2019 | Sir C.R.Reddy College of engineering, Eluru. |
| 3. | Implementation of content addressable memory based on sparse cluster network using load store queue technique. | international conference on current research in engineering technologies, applied sciences and business management (ICCRETASBM-2016). | 14 th Dec 2016 | ST.Mary's Group of Institution, Guntur |
| 4 | Design of high throughput AXI complaint DDR'S controller | International conference on recent trends & innovations in engineering & technology (ICRTIET-15) | 1 st - 2 nd May 2015 | PACE institute of technology & science, ongole. |
| 5 | Analysis Of Near -Far Effect And Multi Path Multiplication Techniques For Pseudo Based Applications. | NCRRECE National conference | 24 th January 2014 | Sir C.R.Reddy College of engineering, Eluru. |
| 6 | Control Module Design For ADC Based On FPGA | NCRRECE National conference | 24 th January 2014 | Sir C.R.Reddy College of engineering, Eluru. |
| 7 | Design And Analysis Of Parallel BCD Adder With Power Gated Circuit For Future Technology. | NCRRECE National conference | 24 th January 2014 | Sir C.R.Reddy College of engineering, Eluru. |
| 8 | Multi Tracking Simulator Implementation In Fpga For Esm System | IIST International conference | 29 th September 2013 | ICRT Engineering technology, chennai |
| 9 | A Noval Design Of Dual Stack Method For Future Technologies | IIST International conference | 29 th September 2013 | ICRT Engineering technology, chennai |
| 10 | 3D VLSI Image processing system with Network-on-chip system and Reconfigurable Memory Architecture | ICCIEA International conference | 23 th september- 2012. | IRNET, PUNE |
| 11. | Application of DDRSDRAM controller for high speed data acquisition. | OPTTEST-2009 National conference | 27 th , March - 2009 | Bannariamman institute of technology, Sathyamagalam |

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|-----|---|---|------------------------------|---------------------------------------|
| 12. | “ Double Data Rate Synchronous Dynamic RAM Controller | INNOVATION IDEAS IN MECHATRONICS”(IIM 2009) | 14 th March 2009. | Kumaraguru college of tech,Coimbatour |
|-----|---|---|------------------------------|---------------------------------------|

(c) FDP/ Workshops/STTP Attended

| S.No | FDPs | Title | Organization/Institution | Date |
|------|----------------------------|---|--|---|
| 1. | 5 days online FDP program | Online faculty development program on Artificial intelligent. | Department of information technology, Sir C.R.Reddy college of engineering,Eluru. | 22 th -26 th may 2020. |
| 2. | 5 days online FDP program | Fdp On Applications Of Signal Processing In Iot” . | PRATHYUSHA Engineering College Associated with EMBEDDED & MATLAB CLUB. | 21 st to 22 nd May,2020 |
| 3. | 3 days online FDP program | National level FDP on tools for online class room post covid-19. | Presented by Codegnan IT Solutions (OPC) Private Limited associated with Department of C.S.E, P B Siddhartha College of Arts & Science (PBSCAS), Vijayawada. | 18 th to 20 th May 2020 |
| 4. | 5 days online FDP program | FDP on introduction to data science. | Presented by Codegnan IT Solutions (OPC) Private Limited associated with Department of C.S.E, Guntur engineering college. | 18 th to 22 nd May,2020 |
| 5. | AICTE sponsored 2 week FDP | Design challenges in deep sub-micron technology | Department of E.C.E , Raghu institute of technology, Visakhapatnam | 5 th to 19 th August 2019 |
| 6. | AICTE sponsored 2 week FDP | Bio-medical signal processing & Applications. | Department of E.C.E , Sir C.R.Reddy College of engineering, Eluru. | 1 st to 14 th November 2019 |
| 7. | 5 Days FDP | VLSI & FPGA Implementation of Signal Processing Algorithms & Applications | Jointly Organized by Electronics & ICT Academy GITAM university,vishakapatnam | 2 nd to 7 th may 2018 |
| 8. | NPTEL-AICTE FDP | Introduction to research | IIT Madras | Aug-Sep 2018 |

(d) Workshops/STTP Attended

| S.No | Seminars/Workshops/Guest lectures/ | Title | Organization/Institution | Date |
|------|------------------------------------|-------|--------------------------|------|
|------|------------------------------------|-------|--------------------------|------|

| | /Refresher Courses | | | |
|-----|---------------------------|---|--|--|
| 1. | 3-days work shop | Power semiconductor device modeling using TCAD simulation | Dept. of micro & Nano electronics School of electronics engineering [SENSE] ,Vellore institute of technology,Vellore | 29 th NOV- 1 st DEC 2019. |
| 2 | 3-days work shop | National workshop on SPACE DYNAMICS (NWSD) | ISRO, SIRC.R.Reddy College(Aided &Autonomous) , Eluru | 4 th – 6 th october 2017. |
| 3. | 2-days work shop | Anlog integrated circuit design design EDAtools | Shri Vishnu engineering college for women Bhimavaram. | 6-10 july 2016 |
| 4. | 2-days work shop | HFSS-faculty and student development programme | Innovent simulation ideas, SIRC.R.Reddy College Of Engineering,Elutu | 3 rd ,4 th May 2016 |
| 5. | 2-days work shop | 3D modeling of electromagnetics systems using Ansys RF-Tools. | SIRC.R.Reddy College Of Engineering,Elutu | 9 th ,10 th September 2016 |
| 6. | 2-days work shop | IC Designflow using Mentor Graphics EDA tools | SIRCRRCOE, Elutu | 5 th ,6 th august 2016. |
| 7. | 3-days workshop | Communication Systems Measurement Setup And Testing | Scitech, SIRC.R.Reddy College Of Engineering,elutu | 11 th -13 th july 2016 |
| 8. | 1-day work shop | PLC programming & Applications. HITECH AUTOMATION | SIRC.R.Reddy College Of Engineering,Elutu | 1 st March 2015. |
| 9. | 2-days national work shop | SOFT Computing And Signal Processing applications to engineering. | SASI Institute of technology&Engineering | 24 th , 25 th june 2011 |
| 10 | 1-day work shop | NATIONAL LEVELWORKSHOPON ARM9” | Organized by ISM | 23 rd November 2007 |
| 11. | 3days Seminar | ASIC DESIGN & VERIFICATION USING SYSTEM VERILOG. | M.S .RAMAIAH SCHOOL OF ADVANCED SUDIES. | 25 th – 27 th Oct 2007 |
| 12. | 2-days work shop | DSP Processor Architecture,Programming and Application. | Bannariamman institute of technology, Sathyamagalam | 5 th - 6 th october 2007 |
| 13. | 1- day Seminar | RF Mesurements | Bannariamman institute of technology, Sathyamagalam | 27 th November 2007 |

(e) Workshops/Guest lecture Conducted

| S No | Name of the workshop/ STTP | Place | Period | |
|------|---|---|---------------------------|---------------------------|
| | | | From | To |
| 1 | Guest Lecture On “Startups And Latest Technology Awareness” | Sir CRR College of Engineering, Eluru | 20 th December | |
| 2 | 3-Day Workshop On “IOT Using Raspberry Pi Hands On Approach” | Sir CRR College of Engineering, Eluru. | 13 th Feb 2020 | 15 th Feb 2020 |

(f) Online certificate course completed:

| S.I NO | Date | event | Organised by | Certificate number | Remarks |
|--------|-----------|--|--|--|----------------------|
| 1 | 7-5-2020 | VLSI CAD Part I: Logic | online non-credit course authorized by University of Illinois at Urbana-Champaign and offered through Coursera | 3JBJZVUXU25 | Certification course |
| 2 | 10-5-2020 | Programming for Everybody (Getting Started with Python) | online non-credit course authorized by University of Michigan and offered through Coursera | WEQLVCBFV7AG | Certification course |
| 3 | 11-05-20 | Spread sheets for Beginners using Google Sheets | online non-credit course authorized by Rhyme and offered through Coursera | PG59C4X8QKW4 | Certification course |
| 4 | 14-05-20 | Getting Started with AWS Machine Learning | online non-credit course authorized by Amazon Web Services and offered through Coursera | KDTEBQDS7RLN | Certification course |
| 5 | 17-05-20 | AI For Everyone | online non-credit course authorized by deeplearning.ai and offered through Coursera | 8NDXCGB5U5M | Certification course |
| 6 | 24-04-20 | VSD - Circuit Design & SPICE Simulations - Part 1 | online non-credit course authorized by VSD - Circuit Design & SPICE Simulations - Part 1 and offered through udemy. | UC-ee62ba4e-9405-47fb-bd7e-df961fdf125 | Certification course |
| 7 | 23-05-20 | Learning How to Learn: Powerful mental tools to help you master tough subjects | online non-credit course authorized by McMaster University and University of California San Diego and offered through Coursera | QZ3489NWCQA2 | Certification course |
| 8 | 26-04-20 | World Intellectual Property Rights (IPR) day Quiz-2020 | School of Life Sciences, B.S. Abdur Rahman Crescent Institute of Science and Technology, Vandalur, Chennai, India | Appreciation certificate. | Certification quiz |

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|-----|-------------------------|---|--|------------------------------------|----------------------|
| 9 | 16-05-20 | Building Support Vector Machine Model webinar | Codegnan IT Solutions (OPC) Private Limited, | Participation certificate. | Webinar program |
| 10 | 06-01-20 | Test your knowledge on NBA criteria's | Department of I.T,MLR institute of Technology, Hyderabad | Appreciation certificate. | Certification quiz |
| 12 | 01-06-20 | Research Metrics in scientific publications | Department of E.C.E , MLR institute of Technology, Hyderabad | Appreciation certificate. | Certification quiz |
| 13. | 29-05-20 | Faculty skill test on VLSI design | Dhanekula institute of Technology, Vijayawada. | Appreciation certificate. | Certification quiz |
| 14. | 4-12-2004 | Programming in C | NIIT, Amalapuram | Course completed certificate. | Certification course |
| 15. | Aug –Sep 2018 (8 weeks) | Introduction to Research | IIT Madras | Course completed certificate.(74%) | Certification course |
| 16. | Aug –Sep 2018 (8 weeks) | Architectural Design of Digital Integrated Circuits | IIT Madras | Course completed certificate.(42%) | Certification course |

8. **Strengths:** Hard work and Self-Motivation

9. **Professional Bodies Membership :**

Member of IETE, Membership No: **M-500572.**

Member of Institute of Engineers, Membership No: **M-153778-9.**

IAENG(134044)

10. **Personal Details:**

- (a) Name of the Father : D.Ramachandra Rao
(b) Name of the Mother : D.Uma maheswari.
(c) Gender : Male
(d) Marital Status : Married
(e) Nationality : Indian

11. **Address for Communication**

: D.No. : 27 – 21 – 12/1,
Near Naga Devatha temple, Opp.Road No.5.,
Vijaya Gardens, Eluru – 534007, W.G. Dist.

12. **Permanent Address**

: D.No. : 5 –57 /2, ChallaVari Street, Velam Pet,
PentaPadu – 534166, W.G. Dist.

13. Mobile No : 8121209554
14. Email-ID : ajaybabuji@gmail.com

Date: 19-11-2020

Place: Eluru

Signature of the Candidate

Signature