

# CURRICULUM VITAE

**SOLOMON J V GOTHAM**

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## CAREER OBJECTIVE

To be involved in work where I can utilize my skill and creatively involved with system that effectively contributes to the growth of organization and earns self-satisfaction.

## STRENGTHS

- Technical Knowledge with Practical Experience.
- Strong Organizational and leadership skills.
- Excellent Communication and Presentation skills.
- Easy adaptability to various work environments.
- Ability to work under time and accuracy pressures.
- Creative and Analytical thinking.

## EDUCATIONAL DETAILS

- **PhD (ECE)** from Andhra University, Under the guidance of Dr. G. Sasibushana Rao, Professor, Dept of ECE, AUCE (A), Andhra University, Visakhapatnam
- **M.Tech** with First Class from GITAM College of Engineering affiliated to Andhra University.
- **B.Tech (ECE)** with First class from VR Siddhartha Engg College, affiliated to NAgarjuna University, Vijayawada.

## CERTIFICATIONS

- Certified as Brain Bench C++ Programmer, 2000.
- Certified in ‘Machine Learning’ online course through Coursera by Stanford University, 2019.
- Certified as ‘IBM Data Science Professional’ by IBM through Coursera, 2021.
- Certified in ‘What is Data Science’ online course through Coursera by IBM, 2020.
- Certified in ‘Tools for Data science’ online course through Coursera by IBM, 2020.
- Certified in ‘Data Science Methodology’ online course through Coursera by IBM, 2020.
- Certified in ‘Python for Data Science and AI’ online course through Coursera by IBM, 2020.
- Certified in ‘Machine learning with Python’ online course through Coursera by IBM, 2020.
- Certified in ‘Databases and SQL for Data Science’ online course through Coursera by IBM, 2020.
- Certified in ‘Data Visualization with Python’ online course through Coursera by IBM, 2020.
- Certified in ‘Data Analysis with Python’ online course through Coursera by IBM, 2020.
- Certified in ‘Applied Data Science Capstone’ online course through Coursera by IBM, 2021.

## ACADEMIC SCHOLARSHIPS

- Meritorious Scholarships from Dist. Edu. Officer for being school first in 8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup> Standards.
- National Merit Scholarship from 10<sup>th</sup> onwards.

## EXPERIENCE

### Over 30 years as Sr. Engineer, Consultant and Faculty

#### Consultant (9 years)

- Design and development of digital systems and S/W projects
- Several students were trained over many advanced topics in different prestigious institutions

#### Faculty (21 years in Engineering Colleges)

#### Teaching Experience

Presently working as Associate Professor and HOD, Dept. of ECE, Dr. LB College of Engg. for women (Affiliated. to Andhra University), Visakhapatnam from August 2016 .

S.No	College	Position held	Year	Exp
1	Welfare Institute of science technology & management	Professor &HOD	2015-16	0.5
1	Kaushik college of Engg. Visakhapatnam	Professor &HOD	2012– 2014	2
2	Sanketika (SVP and ITAM), Visakhapatnam	Assoc. Prof	2008-2012	4
3	VITAM, Visakapatnam	Assoc. Prof & HOD	2006-2008	2
4	TPIST, Bobbili	Assoc Prof	2004-2006	2
5	Gokul, Bobbili	Assoc. Prof & HOD	2002-2004	2
6	Avanthi, Narsipatnam	Assoc. Prof & HOD	2000-2002	2

#### Industry Experience

- M/S BHPV LTD., (Maintenance of CNC machines (Associated Institutions & companies) & PC's ---- (1991- 93)
- Gilard Electronics Ltd., Systems maintenance ---- (1993-95)
- KK Business propagations (Business partner ---- (1995-98)
- MSRS Educational Trust (Faculty-MCA, ITM-EC ---- (1998-2000)

- Millennium InfoTech (Embedded Systems, Linux Development, Digital design ---- (1999-2001)
- CMC- A TATA Enterprise (Embedded projects ---- (2004-06)
- CAAM Technologies (Linux Development, Projects)

## R&D EXPERIENCE

**One year (2014-15) as Research Fellow on a defense project (DLRL project).**

Different placement scenarios of sensors were devised to detect target from an unknown direction. Algorithms have been developed to estimate the position of target. A report was generated comparing the placement scenarios, accuracy of position of target and distance. Simulation was performed using MATLAB.

## PROJECT, R&D BASED PROFICIENCY AREAS

- ECE hardware – Embedded Technology, VLSI Design, Wireless communications.
- Computer based OS skills – Unix Internals, Network Programming
- Real Time OS – Vx Works
- Programming Languages – C/ C++, Python, MATLAB
- Simulation tools- NS-2, Simple Scalar, Mi-Bench, EEGLB, ICALAB etc.

## ACADEMIC PROJECTS, DISSERTATION & THESIS

1. **B.Tech Project:** “Development of an X Y plotter using 8085 Micro Processor”  
– Two motors whose shafts were tied with joined ropes were interfaced to 8085 microprocessor. The joined ropes were attached with a marker. Based on the position given as a command, microprocessor will run the motors so that the marker will move by X and Y positions and. places a mark. This application was later developed to be a graphical plotter.
2. **M.Tech Project:** “Design of Inter Procedural Control Flow based Embedded Security Monitor” –  
In sophisticated embedded systems like missile guiding systems, malfunctioning in the sequence of calling of subroutines in the embedded software or hardware is a security threat. To void such

threats, a predefined monitor according to sequence of procedures called in the application will be developed. This monitor runs parallel along with the application as a run time monitor and acts on malfunctioning of embedded system. Simulation was done in C programming language using LINUX Inter Procedural Communications (IPC) calls. This same run time monitor can be designed through Hardware Description Language (HDL) to develop a secured embedded IC with Application Specific Integrated Circuit (ASIC) design.

3. **PhD Thesis:** ‘Development of Reacting Time Period Extraction model for brain signal analysis of Cerebral Palsy disabled patients’
  - Cerebral Palsy (CP) is one of the neglected brain disorders in the research of brain signal analysis. This brain disorder has no cure but rehabilitation only. A model to find out time period in which the brain of a CP disabled patient reacts to certain events is developed in this thesis. The developed model helps in devising proper plan for therapy, clinical measures and developing assistive devices for comfortable living of CP disabled patients.

## RESEARCH PUBLICATIONS

**Published about 6 Conference papers and 11 International Journals**

### Journals

1. Solomon Gotham and G. Sasibushana Rao, “A Suitable Approach in Extracting Brain Source Signals from Disabled Patients”, **Springer Journal LNEE** series, ISSN 1876-1100 ISBN 978-81-322-2726-7, DOI 10.1007/978-81-322-2728-1, pp 721-732. (**SCOPUS INDEXED**)
2. Solomon Gotham and G. Sasibushana Rao, “A suitable approach in extracting non event related potential sources from brain of disabled patients”, **Elsevier Science Direct Journal of Procedia Computer Science**, Vol. 85-pp 705- 712 ISBN 1877-0509, 2016. (**SCOPUS INDEXED**)
3. Solomon Gotham, et al. “A Concurrent Self Repair Scheme for Defects in Random Access Memories”, *International Journal of Innovative Technology and Exploring Engineering*, ISSN: 2278-3075, September 2012.
4. Solomon Gotham, et al. “CAVLC Video coding Technique for MPEG-4” *International Journal of Engineering and Advanced Technology*, ISSN: 2249 –8958, November 2012.
5. Solomon Gotham, et al. “A Hybrid and Memory Efficient Multiplier and Accumulator Design Using Radix -4 Algorithm”, *International Journal of Innovative Technology and Exploring Engineering* , ISSN: 2278-3075, September 2012.
6. Solomon Gotham, et al. “Implementation of DDS Based Harmonic Signal Generator”, *International Journal of Innovative Technology and Exploring Engineering* , ISSN: 2278-3075, November 2012.

7. Solomon J V Gotham, et al. A Venkata Krishna, “FFT Processor For High Speed Applications”, *International journal of engineering research and technology*, e-ISSN: 2278-0181 Vol.2 - Issue 12, December – 2013
8. Solomon J V Gotham, et al. “Area and Speed Optimization for EDDR Design using VHDL”, *International journal of scientific engineering and technology research*, ISSN : 2319-8885, IJSETR-9, pp 0052-0058, January 2014.
9. Solomon J V Gotham, et al. “Speed Optimized Implementation of 32 Bit RISC (MIPS) Architecture”, *International Journal of VLSI Design and Communication System*, ISSN : 2322-0929 Volume 2, pp 0018-0025, August 2013.
10. Solomon J V Gotham, et al. “A Novel Architecture for Digital Image Compression based on EBCOT Parallel Processing”. *International journal of scientific engineering and technology research*, ISSN : 2319-8885, pp 2301-2310, January 2014.
11. Solomon J V Gotham, et al. “Bit Serial Iterative Cordic Implementation for the Calculation of Trigonometric Functions”, *International journal of scientific engineering and technology research*, ISSN: 2319-8885, IJSETR-12, pp 0073-0080, January 2014.

### Conferences

1. Solomon Gotham, G. Sasibushana Rao, “Investigation of suitable Gaussian estimate to extract brain source signals of disabled subjects”, **IEEE** India international Conference (**INDICON2015**), held at Jamia Milia Islamia, New Delhi, India, ISSN:2325-9418, ISBN: 978-1-4673-7399-9, 2015. (**SCOPUS INDEXED**)
2. Solomon Gotham, G. Sasibushana Rao, “A Suitable Approach in Extracting Brain Source Signals from Disabled Patients”, International Conference on Microelectronics, Electromagnetics and Telecommunications(ICMEET 2015) at Department of Electronics and Communication Engineering, GITAM Institute of Technology, GITAM University, Visakhapatnam, India, held during 18–19 December, 2015.
3. Solomon Gotham, G. Sasibushana Rao, “A suitable approach in extracting non event related potential sources from brain of disabled patients”, International Conference on Computational Modeling and Security (CMS 2016) held at Bangalore during 12-14 February, 2016.
4. Solomon Gotham, G. Sasibushana Rao, “Performance analysis of radial ring and mesh topologies for 3G cellular base stations”, **IEEE** conference on Advances in Communications, Navigation and Computer Networks(ACNCN-2012), organized by Dept. of ECE, AUCE(A), Visakhapatnam during March 2012.
5. G Sasi Bhushana Rao, Solomon Gotham, et al. “Investigation of Performance Analysis on Capacity for UMTS Cellular Network” **IEEE** conference on Advances in Communications, Navigation and Computer Networks(ACNCN-2012), organized by Dept. of ECE, AUCE(A), Visakhapatnam during March 2012.
6. G Sasibhushana Rao, Solomon Gotham, et al. “SET Estimation Algorithm for Precise Navigation and Surveying Applications”, **IEEE** International Conference EESCO-2015, Visakhapatnam, Andhra Pradesh, 24th – 25th Jan 2015.

## INVITED LECTURES

- Invited as resource person to deliver a talk on '*solving equations in MATLAB*' at a 2 day national workshop on "MATLAB and its applications in Communications and Signal Processing" on 12<sup>th</sup> and 13<sup>th</sup> November 2011 conducted by Dept of ECE, Andhra University College of Engineering, A,U, Visakhapatnam.
- Invited to deliver a Guest lecture on "*advanced signal processors*" to 3<sup>rd</sup> B.Tech ECE and EEE students at Sri Gnaneswari research & Technological Academy for women on 18-3-2011.
- Invited to deliver a Guest lecture on "*Digital Signal Processing*" to ECE and EEE students at Viskha Engineering College on 24-3-2011.
- Invited to deliver a Guest lecture on "*advanced Micro Processors*" to 3<sup>rd</sup> ECE students at Sri Chaitanya Engineering College on 21-03-2012.

## SUBJECTS HANDLED - SKILL AREAS

### Electronics Subjects

- Advanced microprocessors and Micro controllers.
- Analog & Digital Electronics(EDC, ACA, PDC, STLD,ME, DLD) EMF & Antennas (EMWTL, AWP)
- VLSI Design
- Embedded systems

### Computer science Subjects

C, C++, Python, CN, DS, OOPS (C++), CO, ACA, UNIX Programming

## ADMINISTRATIVE EXPERIENCE

- Worked as Head of the Department in Kaushik college of Engg. Visakhapatnam (2012-14).
- Worked as Head of the Department in VITAM, Visakapatnam (2006-08)
- Worked as Head of the Department in Gokul, Bobbili (2002-2004)

- Worked as Head of the Department in Avanathi, Narsipatnam (2002-2004)
- Functioned as member, Coordination Committee, IEEE co-sponsored conference on Advances in Communications, Navigation and Computer Networks(ACNCN-2012),
- Convener for SANKETH-10 a mega youth fest organized in SVP Engg. College.
- Conducted seminars in the department on recent trends in technology and workshops by different industries.
- Functioned as member in different committees of college.
- Having good experience in preparation of reports for the purpose of inspection of various committees from AICTE, NBA, NAAC, JNTU, A.U, etc.,

### PROJECTS GUIDED

Around 100 **B.Tech** and 10 **M.Tech** students were guided and assisted in the Areas of embedded Systems, VLSI, Signal Processing and Wireless Communications.

### SEMINARS & WORKSHOPS ATTENDED

**VLSI Workshop** conducted at Andhra University by **IIT Kharagpur** for seven days.

**TQM in education** by Confederation of Indian Industries **CII**.

**Intel- IT** one day seminar Conducted by **Intel India**.

**Value education** 7 day workshop by **WIPRO**

**Bio Medical Signal Processing** workshop conducted by SCS India, Chennai for 2 days.

### ADDITIONAL CONTRIBUTIONS

- Streamlined academic labs in all the colleges I have worked when they were with so many deficiencies like bench set ups, improper record of equipment procuring and maintenance.
- Developed R&D Lab for the department in Kaushik Engineering College that enabled

1. Department to create a research environment.



2. 2<sup>nd</sup> year students with creating interest to learn and develop small projects from second year itself and 4<sup>th</sup> year students to develop projects in house.
  3. Faculty to develop research skills and to publish papers.
- Students were given training on personality development weekly once (separate to each class) by conducting
    1. Group discussions
    2. group tasks
    3. Brain games.
    4. Quiz etc.,
  - Streamlined department files maintenance properly so as to habituate faculty for NBA or NAAC structure.

### HOBBIES & INTERESTS

- Listening Music
- Playing Music
- Playing games like Shuttle Badminton, Foot Ball.
- Watching Sports.

### PERSONAL DETAILS

**Date of birth** : 01-02-1968

**Address** : Flat no 4, Amulya Arcade  
VIP Road,  
Visakapatnam-13

**Sex** : Male

**Marital Status** : Married

**Sports** : Kho-Kho(Inter Dist)  
Foot-Ball (Inter col)

**Hobbies** : Listening and Playing Music