CURRICULUM VITAE

1. Name : Dr. Arunkumar K. Walunj

2. **Designation** : HOD & Vice-Principal, Associate Professor

3. Office Address : Department of Electronic Science, Poona

College of Arts, Science & Commerce, Camp,

Pune 411001.

E-mail: arunkumar.walunj@poonacollege.edu.in

4. Date of Birth : 07:10:1963

5. Academic Qualification

| Degree | Year | Institution/ Board | Country |
|------------|------|----------------------------------|---------|
| B. Sc. | 1984 | Fergusson College, SPPU | India |
| M.Sc. | 1986 | Fergusson College, SPPU | India |
| P.G.D.C.P. | 1995 | Indo-German Society of India. | India |
| M.Phil | 2001 | Savitribai Phule Pune University | India |
| Ph.D. | 2008 | Savitribai Phule Pune University | India |

6. Teaching Experience

| Duration | Position Held | Organization | |
|------------|--------------------------|----------------------------------|--|
| 1988–1993 | Lecturer | Poona College, Camp, Pune-411001 | |
| 1993-1996 | Sr. Grade Lecture | Poona College, Camp, Pune-411001 | |
| 1996-1999 | Selection Grade Lecturer | Poona College, Camp, Pune-411001 | |
| 1999-2006 | Feeder Cadre | Poona College, Camp, Pune-411001 | |
| 2006- 2021 | Associate Professor | Poona College, Camp, Pune-411001 | |

7. Ph.D. Topic : Improvement of Quality and Reliability of Electronic Circuits at Design

Satge using Tacguchi Method.

8. Area of Interest : Wi-Fi, Adhoc Wireless Sensons, Zigbee and Hazardous gas leakage

detections Modeling and Simulation, Six Sigma, DOE, Taguchi Methods,

Qulaity & Relibility of Electronic Circuits & Systems. Aurdion, Python

based IOT and Home automation Projects.

9. Courses Taught : Analog & Digital System Design, Communication Systems, C and

MATLAB Programming, OrCAD/ PSPICE. VLSI.

10. Other Innovative Activities

: Research Projects completed: 03 (UGC, ISRO, SPPU BCUD Sponsored by ISRO-(Rs 892400/-), BCUD- (Rs.300000/-) and UGC 38000/- Viz:

(I)"Hazardous Nitrous Oxide(N₂O) Gas Leakage Detection and Monitoring System using Wireless Sensor Network".

(II)"Development of Simulation Lab(S-Lab) for Effective Classroom Teaching and Enhancing e-Self-Learning Practical Skills in Electronics at UG Level".

(III)"Environmental Effects in Electronic Circuits, Performance Degradation Studies using PSPICE".

(IV)" Development of Circuit Simulation on line Teaching Course".

(V)" Designed and Development of Analog and Digital Discovery Workstation for Practical courses implementation at UG /PG level".

11. Membership of Learned Societies and Administrative Bodies;

- 1. International Life Memebrship of World Federation of Teachers' Unions, FISE., France.
- 2. National Life-membership of Indian Science Congress, Kolkatta.
- 3. Life Memebrship of Journal of Instrumnt Society of India, (JISOI), IISC, Bangalore.
- 4. Life Memebership SPEED, Savitribai Phule Pune, University, SPPU, Pune.

12. Abroad Visits

• USA, Rietsumekan University Tokyo, Japan, KISAT- South Korea, Hong Kong, Hungery, Vienna, Dubai, Thailand, Malaysia, Singapore.

13. Publication Details

a) Name of the Journals/ Books in which papers are published

- Journal of Emerging Technologies and Innovative Research (JETIR), An International Open Access, Peer-reviewed, Refereed Journal, ISSN: 2349-5162, Impact factor 7.95, UGC Approved Journal No 63975.
- International Journal for Research in Engineering Application & Management (IJREAM). An ISO 3297: 2007 Certification ISSN: 2454-9150, Advanced Sciences Index (ASI), Germany, Approved By UGC, UGC_List_No_64077
- 3. International Journal of Research and Analytical Reviews (IJRAR), International Peer Reviewed, Open Access Journal. E-ISSN 2348-1269, P- ISSN 2349-5138.
- 4. Journal of Instrumentation Society of India, (JISOI), IISC, Bangalore, 2000, 2002 & 2006, ISSN: 0970-9983.

- 5. Journal of Environment Observer(NCHEWM), Dec- 2013, National Peer reviewed Joint Pub.
- 6. An International Multidisciplinary Half Yearly Research Journal Vol. VI, Issue-II, PP-94-104.Dec-2017- May-2018. ISSN-2278-8158
- 7. Journal of Physics Education, A Quarterly Journal of Higher Education, University of Pune, Pune, Vol-16, April-June 1999.

b) Papers published in Conferences / Seminars

- Study of Distributed Carbon Monoxide Gas Detection System using Wireless Sensor Network on Field, Int. Conf. Perspectives of Computer Confluence with Sciences, N. Wadia College, Pune, 10-12 Dec. 2012, ISSN: 978-93-82062-76-9.
- 2. Experimental Performance Studies of Star Topology multi-parameter Wireless Sensor Network, ISPTS-2, CMET, Pune, 2, 8-10 March 2015.
- Challenges in Degradation and Failure Analysis of Integrated Circuits at Design Stage based on OrCAD/PSPICE Education, Teaching & Learning, Western Hotel, Hong Kong SAR, SDMIMD August 1-2, 201.
- E-Waste Management Issues and Hazardous Effects on Environment and Human Life in India, Emerging Strides in Innovations and Skill Enhancement-Sustainable Development a Key Focus, Bangkok 9th May 2018.
- Degradations and Failure Analysis at Design Stage Simulation Study using OrCAD/ PSPICE Software, Sustainable Development in Computer Science and Information Technology" Dept. of Computer Science & Poona College, Camp, Pune 28th Feb 2018.
- 6. Temperature Sensors SCC PSPICE Performance & Reliability Testing due to resistive Tolerances & Effects, NSPTS-7, Dept. of Electronic Science, University of Pune, 14-16 Feb 2000, PP- C50.1-50.3.
- Improved Robust Circuit Design for Environmental & Operating Stresses using Taguchi Method, Emerging Trends in Signal processing & Comm. (ETSPC07), MAE, Alandi, Pune 27-29, Dec 2007.

13. Papers presented in Conferences / Seminars

- 1. Harmonic Distortion Studies of Class –B Push-Pull Amplifier using Fourier Analysis with PSPICE, DSP Seminar, Dept. of Electronics, Karnataka University, Dharwad, 24-25, Jan -2001.
- 2. Model for Grid connected Solar PV Power Generating System, First NC2E, School of Energy Studies & Dept. of Environmental. Science, University of Pune, 20-22 Feb-2014 PP-131-133.

- Development and Assessment of Discovery Workstation as an Effective Tool in Skill Enhancement of Undergraduate Students, Advances in Electronics and its Interdisciplinary Applications, Fergusson College, Pune 20 Sept. 2014, ISBN 978-93-5174-783-3.
- 4. Study of Quality of Communication Link used in Wireless Sensor Network, Advances in Electronics and its Interdisciplinary Applications, (NCAEIA-2014) DES' Fergusson College, Pune 20 Sept. 2014, ISBN 978-93-5174-783-3pp-102-105.
- Experimental Study on Reliability and In -Time Delivery of Illumination Data on Wireless Sensor Network, Modern Approach for Green Electronics & Computing, Dept. of Electronics, Y. C. Inst. of Science, Satara. 29-30 Dec. 2014, ISBN 978-81-928732-2-0.
- 6. Relative Signal Strength based Localization of the Gas leakage source with Wireless Sensor Network, Advances in WSN & its Apps. (NCAWSNA-2014), Dept. of Electronics, S.M. Mahavidalaya, Akluj,
- 7. Simulation Technique for Effective Teaching in Electronic Communication Circuits and Systems 12-13 Dec 2014. ISBN, Impact of ICT in Education, Dept. of Electronic Science, Poona College,23-24 Jan 2015. ISBN 978-81-927093-1-4.
- 8. Reliability and In -Time Delivery Transmission of Light Illumination Data with Wireless Sensor Network,102nd Indian Science Congress Association, (ISCA), University of Mumbai, Mumbai, 3-7 Jan 2015.
- 9. Hazardous Electronic Waste (E-Waste) Management Issues and Impacts on Environment Human Health in India, Hazardous e-Waste Management, (NCHEWM, Modern College, Pune, 23-24, Dec. 2013, ISSN 2320-5997 PP-5.
- 10. Role of Academia-Research, Industry Interactions and Challenges in Higher Education Opportunities & Challenges in Higher Education, NCOHE-2011, H. V. Desai College, Pune, 30-2 Nov2011. ISBN:978-81-909640-7-6 PP-309-314
- 11. ROBUST Circuit Design using Simulation Based Taguchi Method, National Seminar on Interdisciplinary Apps of Electronics (NSIAE-2006), ASC, College Chorda, Jalgaon.
- 12. Robust Two--Fiber Intensity Modulated Optic Displacement Sensor for Angle of Reflector, NSPTS-11, Dept. of Electronic Science, University of Pune, 27.
- 13. Development of Simulation Lab (S-Lab) for Teaching and Enhancing e-Self –Learning practical Skills in Electronics at UG Level, Advances in Electronics and its Interdisciplinary Applications, (NCAEI) Fergusson College, Pune 20 Sept. 2014, ISBN 978-93-5174-783-3 PP-359-363
- 14. Design and Development of practical E-LAB Using Discovery Set Up for First Year

- Electronics Students at UG Level, Challenging Research Areas in Computer Sci.& IT, Dept. of Computer Science & UGC, Abeda Inamdar Sr. College, Pune,10-11 Jan 2014 PP-145-147, ISBN: 978-93-83777-00-6.
- 15. Application and Marketing of various software used in Drug Discovery, Mitigating Global Competition through Strategic Innovations, PIMSE, Poona College Campus, Pune, 5-6 April 2013, ISBN: 978-93-82588-11-5.
- 16. Performance degradations of electronic Circuits due to Electron Irradiated Active Components, Electronic Materials, Devices & Systems (ECEDS-1999), Gulbarga University, Karnataka, 18-20 Jan 1999.
- 17. A Low Cost Anytime-Anywhere Hands on Electronics Experimentation based on Soft Discovery Workstation, Impact on ICT on Education, Poona College, March, 2006.-1, ISBN 978-81-927093-1.
- 18. Design and Development of practical platform Using Discovery set up for first Year Electronics Students at UG Level., Innovation Regional Conference, Dept. of Electronics CKT ACS College New Panvel, Mumbai.
- 19. Development of S-Lab for Conceptual Learning through Circuit Simulation for Electronic Science Students at Undergraduate Level, BCUD, QIP, University of Pune, Ahmednagar, ISBN 978-93-5174-783-3.
- 20. Development of Simulation Lab for Effective Classroom Teaching for Electronics Students at UG level, Innovation-2014, Regional Research Conference for Pune University College Teachers, H.V. Desai College, Pune, 26 April 2014.
- 21. Integrated Personality Development and Character Building Under UGC's Scheme & Human Rights Education, IPDCB, Dept. of Electronics, SSP, TTS and GRP College, Jalgaon.
- 22. Detection of Hazardous Gas Leakage Source Relative Signal Strength based Localization using Wireless Sensor Network. 5th International Conference On Recent developments in Science, Humanities & Management organised by Conference World at Dona Paula, Goa. On 18th August 2019.

14. Participation in National/International One Week-duration Workshops

NA

15. Participation in Conferences / Seminars / Workshops :117

- 1. 106th Indian Science congress at lovely Professional University(LPU) Jalandhar, Punjab, 3rd to 7th January 2019.
- 2. Attended 5th International Conference On Recent developments in Science, Humanities & Management organised by Conference World at Dona Paula, Goa. On 18th August 2019.

16. Contributions to Corporate Life

- 1. Member of Corporate Job Assistance Group of IT Industries for Placement of Skill Development Force and Services.in India.
- 2. Ex-Member, Management Council and Senate, Savitribai Phule Pune University, Pune (2010-2015)

17. Supervising the Ph.D. Candidates: Ph.D. Research Guide Affiliated to SPPU and JJTU

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Dr. Arunkumar K. Walunj