

DR. GOPAL SUKDEO GAWANDE

B.E.(E&TC), M.E.(Electronics), ADCSSAA, Ph.D.(Electronics)

Address : D2-103, Sunder Srushti, Suncity Road, Anand Nagar, Pune-52**Contact** : +91-9421494317 / 7038343322, **E-mail:** gawandeg25@gmail.com**DOB** : 10-10-1974**Vidwan Id** : **586649** (<https://vidwan.inflibnet.ac.in/profile/586649>)**Scopus Id** : [56891748400](https://www.scopus.com/authid/detail.uri?authorId=56891748400) (<https://www.scopus.com/authid/detail.uri?authorId=56891748400>)**ORCID Id** : [0000-0001-6379-7078](https://orcid.org/0000-0001-6379-7078)**WOS Id:** [QAW-9465-2026](https://orcid.org/0000-0001-6379-7078)**CAREER OBJECTIVE**

- **Driving Transformation in Higher Education**

AREAS OF RESEARCH

- Digital Signal Processing, Embedded Systems, Project Management, Semiconductors

PROFESSIONAL EXPERTISE

- Development, Implementation and Appraisal of Academic systems using Outcome Based Education (**OBE**) **Philosophy and National Education Policy** (NEP-2020)
- Collaborating with **International Universities**
- **Outstanding Leadership** abilities with ability to coordinate for the assigned tasks
- Fostering **Industry Institute collaborations**

EDUCATIONAL DETAILS

Examination Passed	University/Institution	Year	Class/ Division	% of Marks	Specialization
Ph.D.	Sant Gadge Baba Amravati University	Feb 2016	--	--	Electronics
M.E.	Amravati/S.S.G.M.C.E Shegaon	April 2004	First	63.46	Electronics
ADCSSAA (PG Diploma)	Board of Technical Examinations, Mumbai	June 1997	I-Distinction	76.00	Software
B.E.	Amravati/S.S.G.M.C.E Shegaon	June 1996	First	68.22	Electronics & Telecomm.
H.S.C.	Amravati Board/ RPMGNP Jr.College Shegaon	June 1992	I- Distinction	76.00	Science
S.S.C.	Nagpur Board/ RIGNP High School , Shegaon	June 1990	I- Distinction	78.00	-----

ACHEIVEMENTS

- **Twice NBA Accreditation** while working as a HOD
- **International Collaborations** with **De Montfort University Leceister, UK** and **Payap University Thailand**
- Awarded as a **Best Teacher** by SSGMCE Shegaon in 2012
- Passed **Ph.D. Aptitude Test (State Level)** conducted by **University of Pune** Feb.2005
- **Selected as a Junior Telecom Officer (JTO) in Bharat Sanchar Nigam Ltd. (BSNL) in 2002**
- Selected as a **Junior Engineer (JE) in MAHAGENCO** in 2010
- Selected as a **Lecturer** in Government Polytechnic through **Maharashtra Public Service Commission (MPSC)** in 2010 with **5th Merit Rank**
- Shortlisted for the post of **HOD (Electronics)** in Government Polytechnic through **MPSC** in 2015
- Shortlisted for the post of **Principal** in Government Polytechnic through **MPSC** in 2017

ACADEMIC AND INDUSTRY EXPERIENCE

S.N.	Designation	Duration	Institute
01	Associate Professor	05-05-2026 to 30-06-2026	DES Pune University, Pune
02	Professor	02.12.2024 to 15.04.2026	MIT-ADT University, Pune
03	Professor	03.06.2024 to 30.11.2024	MMCOE, Pune
04	Associate Professor	16.01.2022 to 02.06.2024	MMCOE, Pune
05	Professor	01.02.2016 to 12.10.2021	SSGM College of Engg., Shegaon
06	Associate Professor	01.11.2009 to 31.01.2016	SSGM College of Engg., Shegaon
07	SGL	01.07.2008 to 31.10.2009	SSGM College of Engg., Shegaon
08	Senior Lecturer	01.04.2006 to 30.06.2008	SSGM College of Engg., Shegaon
09	Lecturer	01.09.1997 to 31.03.2006	SSGM College of Engg., Shegaon

ADMINISTRATIVE EXPERIENCE

- Worked as a **HOD-ECE at SOES, MIT-ADT University Pune**
- Worked as a **Chief Coordinator- Rankings at SOES, MIT-ADT University Pune**
- Worked as a **Chairman-Board of Studies (ECE) at SOES , MIT-ADT University**
- Worked as a **Chairman-Doctoral Advisory Committee (ECE) at SOES, MIT-ADT**

University, Pune

- Worked as a Chief Coordinator-Students Grievance Committee at SOES, MIT-ADT University
- Worked as a **NBA Co-ordinator at Institute Level** and Member of **IQAC cell** at **MMCOE, Pune**
- Worked as a **Head, Electronics and Telecomm. Engg. Department** from 08 .04.2022 to 14-11-2024 at **MMCOE, Pune**
- Worked as a **Head, Electronics and Telecomm. Engg. Department** from 24 .10.2013 to 29.09.2021
- Worked as a **Member, BOS (Electronics), SGB Amravati University**, Amravati
- Worked as a Coordinator **Industry Institute Interaction Cell**
- Worked as a **Member of Institute Management Committee** of Government ITI, Shegaon
- Worked as a coordinator, **Administration and Intellectual Property Cell** in Shri Gajanan Invention and Advanced Research Center from 2009 to 2012
- Worked as an **Alumni coordinator** from 2006 to 2008
- Worked as a member of **ISO cell**
- Worked as **Training and Placement Officer** from 2005 to 2006
- Worked as a Training and Placement coordinator from 2003 to 2005

ACADEMIC CONTRIBUTIONS

- Continuous Excellent Teaching performance appraisal
- Restructured Scheme and syllabi of Electronics and Telecommunication Engineering as a member of Board of Studies in SGB Amravati University
- Designed scheme and syllabi for autonomy as a member of Academic Council of SSGMCE Shegaon
- Contributed for NBA Accreditation of UG program 5 times and PG program 01 time.
- Facilitated International collaboration of SSGMCE Shegaon with De Montfort University, UK
- Facilitated Industry collaborations, MOUs, Students Internships and Placements, Sponsored projects

- Reviewer of National and International conferences
- Evaluated Ph.D. thesis
- Supervised UG/PG project work and seminars
- Organized Conference, Workshops, FDPs etc.
- Delivered Technical Talks
- Development of teaching learning material
- Setting up Laboratories and creating high end Research facilities

CARRER DEVELOPMENT

Sponsored Projects	04
Received Funding	17 Lakhs
Patents	02
Journal Publications	26
Conference Publications	12
Books/Book Chapter Publications	01
Workshops / Conferences / STTPs attended	20
Workshops / Conferences / STTPs organized	10
PG project guidance	20
Expert Talks	04

SPONSORED PROJECTS:

Sr. No.	Title	Agency/ Industry	Period	Grant/Amount Mobilized (Rs.lakh)
1	Funding for setting up Research Laboratory	Four Front Technologies , Pune	2024-25	11.82
2	Organized Global Conference on Sustainable and Futuristic Technology-2023	MMCOE, Pune, HDFC	2023-24	5
3	Digital Temperature sensor one wire protocol interface with ST make 32 Bit Microcontroller and display it on Graphic Display"	Micron Tech Systems Pune	2023-24	0.10

4	IVRS for Automation of Doctor Appointment Scheme	SSG Embedded Solutions	2017-18	0.30
5	ARM based Smart AgricultureSystem	Oasis Technologies Pvt.Ltd.,Pune	2016-17	0.20
6	Design and Implementation ofMIL-STD 1553 Bus Protocol with AHRS for Aerial Vehicles	CSIR-Central Scientific Instrument Organization, Chandigarh	2016-17	Hardware and software support facility was provided by CSIR, Chandigarh
7	Development of EmbeddedSoil Nutrient MeasurementSystem Using Optical Photometry	CSIR-CEERI, Pilani	2015-16	Hardware and software support facility was provided by CSIR, Pilani
8	Organized a National conference on “RecentTrends in Information Technology for Rural Development-RTIT-07”	DIT, GOI,New Delhi	2007-08	0.50

PATENT

- Granted a patent on “AIR QUALITY MONITORING PORTABLE DEVICE” (Design No.476627-001)
- Filed a Patent on “LED DRIVING TOPOLOGY FOR SOLID STATE LUMINNAIRE” (App. No. TEMP/E-1/9198/2024-MUM on 06-02-2024)
- An Automatic Air Conditioner Temperature Controller System (Application No. 202421081322 A published on 29/11/2024)

PUBLICATIONS

A. Journal Publications:

S.N.	Paper Title	Journal Title	Vol. Issue No.	ISBN/ ISSN No.	Month & Year
01	Deep Learning Models For Crop Disease Detection Using IOT-Enabled Imaging Systems	International Journal of Computer Information Systems and Industrial Management Applications	Vol. 18 No.1S pp. 1-22	ISSN 2150-7988	May 2026
02	Age Prediction on EEG Signals via Hybrid Feature Engineering Approach	Journal of Information and Optimization Sciences (JIOS) (ESCI Indexed)	Vol. 47,2026 Issue 5-B pp. 2043–2052	Print ISSN: 0252-2667 , Online	April 2026

				ISSN: 21 69-0103	
03	A novel reduced local search algorithm for optimization of digital filter coefficients	Results in Engineering (Scopus Indexed)	Vol. 23, Sept. 2024, 102665	Online ISSN: 2590-1230	August 2024
04	Robust Digital Image Watermarking Using Proposed Inverse Tangent Domain for High Quality Images	The Indian Journal of Technical Education	Vol.47 Speciall ssue pp: 184-192	ISSN 0971-3034	Jan. 2024
05	Transformative Trends in Generative AI: Harnessing Large Language Models for Natural Language Understanding and Generation	International Journal of Intelligent Systems and Applications in Engineering (IJISAE publications) (Scopus Indexed)	Vol.12 No. 4S (2024) pp: 309-319	ISSN: 2147-6799	Nov. 2023
06	The Rise of Crypto Malware: Leveraging Machine Learning Techniques to Understand the Evolution, Impact, and Detection of Cryptocurrency-Related Threats	International Journal on Recent and Innovation Trends in Computing and Communication (Scopus Indexed)	Volume: 11 Issue: 7 pp: 215-222	ISSN: 2321-8169	July 2023
07	KNN-Based ML Model for the Symbol Prediction in TCM Trellis Coded Modulation TCM Decoder	International Journal on Recent and Innovation Trends in Computing and Communication (Scopus Indexed)	Vol. 11 No. 95 pp: 623-627	ISSN: 232 1-8169	August 2023
08	Design of Low Complexity TMU Transition Metric Unit for TCM Decoder using Machine Learning Approach	The Indian Journal of Technical Education	Vol.46, S Issue I pp: 178-182	ISSN: 0971-3034	July 2023
09	Arduino Assisted Vending Machine with RFID Technology	International Journal of Research Publication and Reviews	Vol 4, no 5, pp 6572-6577	ISSN 2582-7421	May 2023

10	A MILP based Optimization and FPGA Implementation of Efficient Polyphase Multirate Filters	International Journal of Intelligent Systems and Applications in Engineering (Scopus Indexed)	Vol.11 Issue 5S PP: 164-172	ISSN: 2147-6799	April 2023
11	IOT Based Weather Information System Using WEMOS	International Journal of Intelligent Systems and Applications in Engineering (Scopus Indexed)	Vol.11 Issue 3S , pp: 85–92	ISSN: 2147-6799	Feb 2023
12	MEMS - based energy scavengers: journey & future	Microsystem Technologies (e-SCI)	Volume 28, 1 pp: 1971-1993	ISSN: 1432-1858	August 2022
13	A Real-time Vehicle Seat Vacancy Identification System: A Review	Journal of Emerging Technologies and Innovative Research (UGC Approved)	Vol.8 Issue 10 pp: b659-b663	ISSN: 2349-5162	Oct 2021
14	Design and Development of Healthcare System based on Internet of Things-Review	International Journal of Computer Sciences and Engineering (UGC Approved)	Vol.6 Issue 5 pp: 392-396	E-ISSN: 2347-2693	May 2018
15	Identification of Plant Species Based on Leaf Images	International Journal of Informative & Futuristic Research	Vol.4 Issue 11 pp: 8260-8268	ISSN: 2347-1697	July 2017
16	Review on Computer aided plant species identification based on leaf images	Elixir International Journal	Vol.106 (May Issue) pp: 46710-46713	ISSN: 2229-712x	May 2017
17	Optimization Techniques for Digital Filter Design: A Review	International Journal of Advanced Research in Computer Science	Volum e 3, No. 7,	ISSN No. 0976-5697	Nov-Dec 2012

18	Performance Evaluation of Efficient Structure for FIR Decimation Filters using Polyphase Decomposition Technique	International Journal of Electronics and Communication Engineering & Technology	Vol. 6, Issue 5 pp: 01-08	ISSN: 0976-6464	May 2015
19	Performance comparison of various digital filters for elimination of Power Line Interference from ECG Signal	International Journal of Current Engineering and Technology	vol. 4, Issue 3 pp: 1255-1259	E-ISSN: 2277-4106 P-ISSN: 2347-5161	June 2014
20	Word Length Optimization for FIR filter Coefficient in Electrocardiogram Filtering	International Journal of Engineering Research & Technology	Vol. 3, Issue 4 pp: 1942-1948	ISSN: 2278-0181	April 2014
21	Implementation of Efficient Multirate Filter Structure for Decimation	International Journal of Current Engineering and Technology	Vol.4, Issue 2 pp: 1008-1010	ISSN: 2277 – 4106	April 2014
22	Design and Development of Efficient Digital Filter Structures using Xilinx System Generator	International Organization of Scientific Research Community of Researcher Journal	Vol.9, Issue 2 pp:12-16	e-ISSN: 2278-1676,p-ISSN: 2320-3331	Mar-Apr 2014
23	Review: Design of Highly Efficient Multirate Digital Filters	International Journal of Engineering Research and Applications (UGC Approved)	Vol.3, Issue 6 pp: 560-564	ISSN: 2248-9622	Nov.-Dec. 2013
24	Performance Analysis of FIR Digital Filter Design Techniques	International Journal of Computing and Corporate Research	vol. 2, Issue 1 pp: 1-15	ISSN: 2249-054x	Jan 2012
25	Approaches to Design & Implement High Speed-Low Power Digital Filter: Review	International Journal of Computing and Corporate Research	Vol. 2, Issue 1	ISSN: 2249-054x	Jan 2012
26	4-Bit 5GS/s Flash ADC in 0.18 μ m CMOS	Journal of Information, Knowledge And Research In Electronics And Communication	Vol.1, Issue 1 pp: 34-	ISSN: 0975-6779	Oct 2010

		Engineering	37		
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B. Conference Publications:

S.N.	Paper Title	Conference	ISBN/ISSN No.	Date of Conference
01	Design, Development and Performance Investigations of Highly Efficient Multirate Filter Structures For Reconfigurable Hardware Implementations	10th International Conference on ICT for Intelligent Systems (ICTIS - 2025), New York USA (Scopus Indexed)	Electronic ISSN: 2190-3026 Print ISSN 2190-3018	23-24 May 2025
02	Design and development of ambient harvester with Aluminum foil integrated electrodes	Eighth ISSS International Conference on Smart Materials, Structures & Systems at IISC, Bangalore		4-7 July 2017
03	Efficient design and implementation of multiplierless FIR filter	IEEE International conference on Computing, Communication, control and Automation (ICCUBE 2016) (Scopus Indexed)	Electronic ISBN: 978-1-5090-3291-4	12-13 Aug 2016
04	Design, Implementation and Analysis of Power Efficient Polyphase Multirate Filters	Third IEEE International Conference on Signal Processing and Integrated Networks (SPIN-2016) (Scopus Indexed)	Electronic ISBN: 978-1-4673-9197-9	11-12 Feb. 2016
05	Review: Optimization Techniques for Multirate Digital Filters	46th Mid Term Symposium on Impact of Technology on Skill Development organized by IETE, Amravati		11-12 April 2015
06	Performance Enhancement of Multirate Digital Filter Structures using Advanced DSP Optimization Techniques	IEEE International Conference on Information Processing (Scopus Indexed)	Electronic ISBN: 978-1-4673-7758-4	16-19 Dec 2015

07	Efficient Design and FPGA Implementation of Digital Filter for Audio Application	IEEE International conference on Computing, communication, control and Automation (ICCUBEA 2015) (Scopus Indexed)	Electronic ISBN:978-1-4799-6892-3	26-27 Feb.2015
08	Elimination of power line interference from ECG signal using notch filter	National Level Conference on Information Theory & Communication Networks at MITCOE, Pune		03-04 Jan 2014
09	Performance Comparison of Architectural Optimization Approaches for Efficient Digital Filter Design	IEEE International conference on Telecommunication and computing (ICTC 13)		Dec. 2013
10	Effect of Finite Word Length for FIR filter Coefficient in Electrocardiogram Filtering	IEEE International conference on Telecommunication and computing (ICTC 13)		Dec.2013
11	High speed digital Encoders for High Speed Flash- ADCs	International Conference on “Computational Intelligence Applications”		03-05 March 2010
12	Wide Area Network Traffic Analysis using Active Measurements	TSYGECA-2006 National Conference organized by Government college of Engineering, Aurangabad		Jan 23 – 24, 2006

CONFERENCES/SEMINARS ATTENDED/ORGANIZED

- **Organized a National Symposium** on “**Semiconductor Technology 2026**”, at MIT ADT University Pune, on 12-13 February 2026
- Attended a Conference on “**VLSI Design**” organized by VLSI Society of India at Pune on 5th January 2026
- Attended a Conference on “**Semiconductor Ecosystem in India**” organized by MCCIA Pune on 15th July 2024
- **Organized Global Conference on Sustainable and Futuristic Technology-2023** (GCon SFT-23) in December 2023
- Attended a Conference on “**Automotive**” organized by Mathworks Pune on 5th Oct 2023
- Attended **IEEE International conference** on Computing, communication, control and

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Automation (ICCUBEA 2015) at VIT Pune

- Attended **IEEE International conference** on Telecommunication and computing (ICTC 13) held at KITS Ramtek
- **Organized a National Conference** on “Recent Trends in Information Technology for Rural Development-RTIT-07” **funded by Department of Information Technology, Government of India** , December 2007.
- Attended the National conference TSYGECA-06 organized by Government College of Engineering, Aurangabad on January 23 – 24, 2006.
- Attended the National Seminar on “Autonomy and Accreditation of the Technical Institutions-Global Perspectives” organized by S.S.G.M. College of Engineering, Shegaon on 29th February, 2004
- Attended the National Seminar on “Renewable Energy Sources and Other Technologies for Rural Development (RESTRD)” organized by S.S.G.M. College of Engineering, Shegaon on 9-10 March, 2002.
- Attended the Seminar on “From old telephony to wireless communication to communication in twenty first century” organized by S.S.G.M. College of Engineering, Shegaon in collaboration with The Institute of Electronics & Telecommunication Engineers, Nagpur on 9th February, 2002.
- Attended the National Seminar on “Accreditation and Autonomy Purpose, Process and Prospect” organized by S.S.G.M. College of Engineering, Shegaon on 11-12 November 2000.

FACULTY DEVELOPMENT PROGRAMMES/STTP/WORKSHOPS ATTENDED/ORGANIZED

- Attended an ATAL FDP on “Periodic Innovations in perspective of VLSI of Semiconductor ICs”, organized by Shah and Anchor Kutchhi Engineering College Mumbai during 15- 20 December 2025.
- Attended a refresher course on “NEP 2020 Orientation and Sensitization Programme organized by UGC- Malviya Mission Training Center during 1-11 September 2025.
- **Co-ordinated** FDP on “The Art of Talkamatics”, in collaboration with The Silent Message, Mumbai during 18-22 December 2022 at MMCOE, Pune
- **Co-ordinated** FDP on “Computer Vision and Deep Learning” organized by MMCOE, Pune during 28th March 2022 to 1st of April 2022.
- **Co-ordinated** FDP on “Python Programming” organized by E & ICT IIIT Jabalpur during 7th September to 18th September 2020

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- Attended FDP on “Lead scape Scholar Warrior Program” organized by SSGMCE, Shegaon from 19th October 2020 to 23rd October 2020
- Attended two days workshop on “Creating a Learning Organization through Outcome based Measures” organized by SSGMCE Shegaon in association with MAITRI, Pune from 11th June 2020 to 12th June 2020
- Attended FDP on “Advanced Teaching Tools, Techniques and Methodologies for Outcome based Education” organized by AISSMS, Pune from 1st June 2020 to 5th June 2020
- Attended FDP on “Promoting Quality Culture in Technical Institutions” organized by AISSMS, Pune from 25st May 2020 to 29th May 2020
- Attended FDP on “Neural Network and CNN” organized by NITTTR Chandigarh during 20th April 2020 to 24th April 2020
- **Conducted** two day workshop on “Research Methodology” ,at SSGMCE, Shegaon on 02nd & 03rd August 2019
- Attended FDP on “Robotics & AI” , jointly organized by E & ICT Academies during June 24-28,2019
- **Acted as a convener** for the FDP on “Computer Vision and Machine Learning”, jointly organized by SSGMCE, Shegaon and IIITDM, Jabalpur during December 03-07,2018
- **Organized** one day workshop on “High Performance Computing”, on Sept 01,2018
- **Conducted** a session on Embedded Systems and IOT in one-month Summer school held during 11th June to 7th July, 2018.
- Attended a two days NBA preparatory workshop organized by SSGMCE during 27th-28th February 2018
- Attended a STTP on “Advanced Engineering Optimization Through Intelligent Techniques”, organized by SVNIT Surat during 21st Sept to 26th Sept 2014
- Attended a STTP on “Signals & Systems”, organized by Institute of Technology, Kharagpur during 02nd Jan to 12th Jan 2014 at SSGMCE Shegaon under NMIET MHRD as a Asstt. Coordinator.
- Attended STTP on “VLSI- DSP Design Techniques” organized by Indian Institute of Technology, Kharagpur during 20th to 24th December 2012.
- Attended STTP on “Advanced DSP Design Techniques” organized by Indian Institute

of Technology, Kharagpur during 11th to 15th July 2011.

- **Organized** a One day workshop on “Introduction to IP and IPR” on 10th Feb 2010.
- Attended training on “High Impact Teaching Skills” organized by Wipro Technologies Pune at SSGMCE Shegaon during 27th Jan to 31st of Jan 2009.
- **Delivered** a session on planning a class session at Two days Pedagogical Training Under Mission 10X Programme on 29th and 30th October 2009.
- Attended a two day workshop on “**Patenting System in India**” organized by NIIPM, Nagpur, GOI, in 2008.
- Organized a five day course on “Fundamentals of Embedded Systems: ARM & RTOS” during 21st-23rd and 29th-30th Sept 2007 for third and Final year B.E. students.
- Attended two day workshop on “Question bank development” organized by government polytechnic Nagpur. On February 8- 9 2007
- Attended STTP on “Digital Signal Processing: Fundamentals, Advances and Applications” organized by S.G.G.S. Institute of Engineering and Technology Vishnupuri, Nanded during 18th December to 23rd December 2006.
- **Organized** a national level technical workshop on ARM processor on Aug. 25 & 26 2006.
- Attended STTP on “Embedded System Design: A Unified Hardware/Software Approach” organized by K.J.Somaiya College of Engineering, Mumbai during 13th June to 24th June 2005.
- **Organized** a short duration course on “Introduction to Electronic Devices and Components – A practical approach” during 22nd to 25th Feb. 2005 for Second Year Electronics & Telecommunication students
- Attended STTP on “Wideband Wireless Digital Communication” organized by SVNIT, Surat during 13th December to 18th December 2004.

COURSES TAUGHT

Semiconductor Memory Design and Testing, Electronic Devices & Circuits, Microprocessor Peripherals and Microcontrollers, Digital Signal Processing, Introduction to Microprocessors, Microprocessor Based Design, Signals and Systems, Microcontrollers, Digital Circuits, Project Management

ABROAD VISITS

- Deputed as a member of delegation sent to **United Kingdom (London & York)** from Western India to discuss on opportunities of collaboration with **UK Universities** (17th to 21st October 2011).
- Attended **24th European Photovoltaic Solar Energy Conference and Exhibition** held at **Hamburg, Germany** (21st to 26th September 2009)

MEMBERSHIP OF PROFESSIONAL BODIES

- Life Member of Indian Society for Technical Education (**ISTE**) - **LM24905**
- Fellow Member IETE – **F-502783**

PERSONAL DETAILS

Marital Status : Married

Nationality : Indian

Languages Known : English, Hindi & Marathi

Hobbies : Reading, traveling, watching movies and listening to music.

Dr. G. S. Gawande