Curriculum Vitae

	1. <u>Pe</u>		
(i)	Name	Dr.(Mrs.) Preeti Trivedi	
(ii)	Husband's Name	Mr. Yogesh Trivedi	
(iii)	Date of Birth	18.05.1970	
(iv)	Address for Communication	25, Shri Royal Krishna's A.B.Road, Rau, Indore	
(v)	Permanent Address	Same as above	
(vi)	Contact Details	+919977052205	
(viii)	Nationality/Religion	Indian	

2.	Educational Qualifications				
No.	Degree	Year	University/Institute	Division	Specialization
1	Ph.D.	2014	DAVV, Indore		SDR Mobile receivers
2	M.Tech	1998	MACT(MANIT), Bhopal	I(Hons)	Microwave and Millimeter Waves
3	B.E.	1994	MACT(MANIT), Bhopal	I(Hons)	Electronics

PhD Dissertation Title: Ph.D.: Effects of various parameters on the performance of Sigma Delta ADC for SDR Mobile receivers

M.Tech.: Study of pattern recognition of Microstrip Antenna

3.	Present Position Held Associate Professor			
4.	Career History and Profile of Work Experience:			
(a)	Academic / Teaching Experience and subjects taught			
(i)	IET, IPS Academy: Nov.1999: June 2000, M.Sc.(Electronics), B.E.			
(ii)	SGSITS, Indore (15 Years): Aug. 2000- till Date			
	Subjects Taught: Analog Electronics, Communication Engg., Microwave Engg,			
	Communication Engg., Microwave Engg., Digital Signal Processing, Digital			
	Communication, Mobile Communication			
(b)	Other Academic Experiences and positions/responsibilities held			
(i)	Develop the lab and lab journal of Active and passive Networks lab.			
(ii)	Taught various new subjects in various semesters during last 15 years.			
(iii)	Worked as Assistant superintendent of exam at institute.			
(iv)	Appointed as OSD (Coder/Decoder).			
(c)	Relevant Administrative Experience			
(i)	Member of technical committee of AYAAM-06, AYAAM-07, AYAAM-08, AYAAM			
	2012, AYAAM 2013, AYAAM 2K14.			
(ii)	Appointed as judge in technical paper presentation (ELECTRONICS) in Aayaam			
()	07,AYAAM-08,Aayaam-09, AYAAM 2013, Aayaam 16, Aayaam 2017			
(iii)	PG admission co-ordinator in the year 2008.			
(iv)	Appointed as Departmental activity Convenor in AYAAM 2012. Appointed as Departmental activity Convenor in AYAAM 2013.			
	Appointed as Convener Gold Medal Ceremony and Ingaugural Ceremony of AYAAM			
	2017.			
(d)	Other Academic cum Administrative Experiences and Positions Held			
(i)	Worked as Coder/Decoder, Tabulator/Checkers, OSD(Scruitiny) and marksheet validator			
	in exam department of the Institute.			
(ii)	Appointed as academic council member of the institute for duration Sept.2012-Aug. 2014.			
(iii)	Appointed as OSD (Coder/Decoder) in Nov-Dec 2016, April-May 2017 and NovDec.			
	2017 in Exam Department of the Institute.			
	Appointed as External Member of BoS in SAGE University, Indore for the session 2018-19, 2019-20, 2020-21			
(v)	Departmental PG NBA Co-ordinator for NBA Visit during 10-12 th Sept. 2021			
(vi)	Presently UG NBA Coordinator .			

5. Research Experience Area of Research Interest: Wireless communication, Digital signal processing, Software defined radio and cognitive radio.

(a)	Post Graduates Guidence			
(i)	"Evaluation of Wireless Fading channel based on Diversity Techniques with different modulation schemes", Surbhi Agrawal, 2006.			
(ii)	"Performance evaluation of DSR and AODV networking protocol with varying pause time", Dhanpratap Singh, 2008.			
(iii)	"Effect of Clock jitter and aperture jitter on the performance of Sigma delta ADC For software defined radio Mobile receivers(3G)", Poornima Raikwar, 2009			
(iv)	"Effect of Effective number of bits and spurious free Dynamic range on the performance of Sigma Delta ADC for SDR 3G mobile receivers" –Shivani Shukla, 2010.			
(v)	"Comparative Assessment of WiMAX scheduler in fixed and mobileWiMAX.Networks for VoIP", Isha Ahirwar,2011.			
(vi)	"Simulation of Second order Sigma delta ADC for improvement in SNR and SNDR for SDR mobile receivers", Neha Singh Rathaur, 2011.			
(vii)	"Characterization and Optimization of sigma Delta ADC", Pritish Tripathi, 2012.			
(viii)	"Analysis of Second &Forth Order Sigma Delta Analog to Digital Converter", Premprakash Semkar, 2013.			
(ix)	"Substrate Integrated Waveguide Microstrip Antenna" Rajkumar Jatav, 2014.			
(x)	"Semi-Blind Aparse MIMO-OFDM Channel Estimation ",Shivanshu Payasi, 2015			
(xi)	"Rate Optimize Power Allocation and Relay Selection For MIMO with Multiple Cognitive and Cooperative Relays using AF Strategy", Akhilesh Kandaria, 2015			
(xii)	"Design Study of Miniaturized Microstrip Patch Antennas Using Different Defects of Ground Planes", Amarnath Upadhyay, 2015 (Co-Guide)			
(xiii)	"Coverage and Secrecy Analysis with Non-Uniform Deployment in Large Scale Wireless Network", Neha Septa, (2015-16)			
(xiv)	"Malicious Cluster Identification in Cognitive Radio Spectrum Sensing Using Fuzzy Based Classifier "Sanvi Khandelwal, (2015-16)			
(xv)	"Comparative Bit Error Rate analysis of LTE downlink Physical layer Nikita Rathore, (2016-17)			
(xvi)	"Real Time Analysis for MIMO WiMAX Channel model using Alamouti and OSTBC Code "Sonal Rohit, (2016-17)			
(xvii)	Ïndoor optical wireless Communication Using Pencil Beam and BER Calculation by using K-L Method" Deepali Choudhary . (2016-17)			
(xviii)	"Throughput Analysis of Cognitive Radio Networks for fading Channels", Mohammad Anas Khan ,(2017-18)			
(xix)	"Designing of Digital Filter for R F System", Priya Chourasia, (2017-18)			
(xx)	" A Novel BPSO Based Optimal Features for handwritten character recognition using SVM Classifier" Sonali Bali (2018-19)			
(L)	Trakaisal Danas Dakisadiana			
(b)	Technical Paper Publications			
(I)	International and National Journals			

- (i) Preeti Trivedi, Anjana Jain, "A Macro perspectives of Software Defined Radio" In **The Indian Journal of Telecommunication(IE)**, special issue on Mobile Communication and Future trends, Jan-Feb 2006.pp.16-19.
- (ii) Preeti Trivedi, Dr.Ajay Verma, "Comparative Analysis of Different ADC parameters used in software radio For Mobile Receivers", In **International Journal of recent trends in engineering(IJRTE)** Nov.'09Vol 2,No.4,pp 47-50.
- (iii) Poornima Raikwar, Preeti Trivedi, "Analysis of Timing Jitter on the performance of Band pass DT sigma delta ADC for software Defined Radio Receivers."In **International Journal of recent trends in engineering (IJRTE)** Nov.'09. Vol. 2,No.7,pp 46-49.
- (iv) Preeti Trivedi, Dr.Ajay Verma, "Understanding Different ADC parameters used in software radio for 3G/4G Mobile receiver", CiiT International Journal of wireless communication, July 2010, ISSN 0974-9640.
- (v) **Preeti Trivedi**, Dr. Ajay Verma, "Improvement In SNR With SFDR Of Sigma Delta ADC For SDR Mobile Receiver" Published in **International Journal of recent trends in engineering and Technology(IJRTET)**, Nov.'11, Vol.6, No.1.[ISSN: 2158-5555 (print) ISSN: 2158-5563 (online)] published by the ACEEE, USA.
- (vi) **Preeti Trivedi**, Dr. Ajay Verma, "Timing Jitter and Quantization Error Effects on the performance of Sigma Delta ADC used in SDR Receivers", **IJEBEA** Issue 7 Vol.1, published by IASIR, USA, pp 40-48, Feb 2014, ISSN (Print): 2279-0020, ISSN (Online): 2279-0039.
- (vii) **Preeti Trivedi**, Dr. Ajay Verma, "Simulation of Second order Sigma Delta ADC for improving SNR upto 97dB for Software Defined Radio for 3G &4G mobile receiver" published in **Indian Telecommunication Journal**, Issue 61 Vol. 1, pp. 46-50, Nov. 2014.
- (viii) Shivanshu Payasi, **Dr. Preeti Trivedi**, Anjulata Yadav, "Sparse MIMO-OFDM Channel Estimation: A Review", Published in The **IUP Journal of Telecommunications**, Vol.VII, No. 2, pp. 7-16, May 2015.
- (ix) Akhilesh Kandaria, **Dr. Preeti Trivedi**, "Optimal Transmit Power Allocation for MIMO Two-Way Cognitive RalayNetworks with Multiple Relays: A Review", Published in **The IUP Journal of Telecommunications**, Vol. VII, No. 2, pp. 16-26, May 2015
- (x) Rajkumar Jatav , **Dr. Preeti Trivedi**, "Substrate Integrated Waveguide as an Antenna for multiple Applications : A review of Current Status" , Published **in The IUP Journal of Telecommunications**, Vol.VII, No. 2, pp. 27-41, May 2015
- (xi) Sanvi Khandelwal, **Preeti Trivedi**,S.V. Charhate, "Spectrum Sensing Methods in the presence of Malicious sensors: A Survey",Published in **IUP Journal of Telecommunication**, Vol. VIII, No. 3, pp. 56 63 August 2016.
- (xii) Neha Septa, **Preeti Trivedi**, Shekhar Sharma, "Network Synchronization techniques for dense small cell cellular networks", Published in **IUP Journal of Telecommunication**, Vol. IX, No. 1,Feb. 2017, pp 15-28.
- (xiii) Sanvi Khandelwal, **Preeti Trivedi**,S.V. Charhate, "Malicious Cluster Identification in cognitive radio Spectrum sensing using Fuzzy Based Classifier", Published in **IUP Journal of Telecommunication**, Vol.IX, No.4, pp. 7-23, Nov. 17.
- (xix) Nikita Rathore, Preeti trivedi, Amit Naik , "Performance Analysis Of LTE-

- Advanced Downlink Transceiver using GNU radio" IUP Journal of Telecommunications Vol. XI No.3, Aug., 2019.
- (xx) Sonal Rohit, Preeti trivedi, "MIMO WIMAX Channel Matlab Simulation using Alamouti and OSTBC Code", IUP Journal of Telecommunications Vol. XI No.4, Nov. 2019
- (xxi) Ruchi Sahu, Amit Naik, Preeti Trivedi, "Energy Efficiency Optimization in Massive MIMO Cognitive Radio network using Smart Radio Algorithms", IJCRT, Vol.6, Issue 1, Feb. 2018 (ISSN:2320-2882)

(xxi) **Book Chapter published**

Sonali Bali, Shekhar Sharma, Preeti Trivedi, "A Novel BPSO-Based Optimal Features for Handwritten Character Recognition Using SVM Classifier", Book Chapter in Springer book series Advs in Intelligent Syst., Computing, Yu-Chen Hu et al: AMBIENT COMMUNICATIONS AND COMPUTER SYSTEMS, 978-981-15-1517-0, 486417_1_En (36), Feb. 2020

(II) <u>Technical Papers – International / National Conferences</u>

- (i) Preeti Trivedi ,Anjana Jain "Architecture of Software Defined Radio-An Emerging Technology" in **International conference of IETE 06,** Mumbai, pp. CP-18.1-18.4.
- (ii) Preeti Trivedi, Anjana Jain "Software Defined Radio-A technique for wireless communication" in **NCAETE-2005**, Osmanabad.
- (iii) Dhanpratap singh ,Mrs.Preeti Trivedi, Ms. Jaya dipti Lal, "Performance evaluation of DSR and AODV networking protocol with varying pause time", in **SPIT-IEEE** Collaquium and International Conference ,Mumbai,4th- 5thFeb.08
- (iv) Poornima Raikwar, Mrs. Preeti Trivedi , Jaya Dipti Lal, "The Effect of Clock jitter on the performance of sigma delta ADC for Software radio Mobile Receivers (3G)" in **National conference on cutting Edge Computer and Electronics Technologies**-(NCCET)-09 During 14th -16th Feb. 2009, Pantnagar (UP).
- (v) Poonima Raikwar, Mrs.Preeti Trivedi, Jaya Dipti Lal, "Analysis of Timing Error Aperture Jitter on the Performance of Sigma Delta ADC for Software Radio Mobile Receivers", In **ARTCom '09** held at Thiruvanantpuram, Kerela during 27th & 28th Oct'09.
- (vi) Poonima Raikwar, Mrs. Preeti Trivedi , Jaya Dipti Lal, "Effect of Clock jitter on t sigma delta ADC for Software radio Mobile Receivers in **ICETET 09**, Nagpur, pp- 1097-1103.
- Shivani Shukla, Preeti Trivedi, "The performance of Sigma Delta ADC with (vii) Quantization Noise for SDR 3G Mobile Receiver", International conference ICETMCA 2010, Tamilnadu, Dec 2010.
- (viii) Shivani Shukla, Preeti Trivedi, "The performance of Sigma Delta ADC with Spurious free dynamic range for SDR 3G Mobile Receiver," **National Conference at GGITS,Jabalpur,** Feb. 2010.
- (ix) Isha Ahirwar, Anjulata Yadav, Preeti Trivedi, "WiMAX Scheduler in Fixed and Mobile WiMAX Networks for VoIP using QualNet" International Conference on Computer and Communication Technology (ICCCT-2010), Motilal Nehru National Institute of Technology, Allahabad (UP), July 2010.
- (x) Isha Ahirwar, Anjulata Yadav, Preeti Trivedi, "Performance Evaluation of Weighted Round Robin based Scheduler for VoIP over WiMAX using Qualnet" AICTE sponsored National conference on Emerging Technological Trends, 19-20th March

- 2010, VNS institute of Technology, Bhopal(MP).
- (xi) Preeti Trivedi,Dr. Ajay Verma, Pritish Tripathi, "Characterization and Optimization of Sigma Delta ADC" in **Third Asian Himalayan International conference on Internet** during 23rdto 25thNovember 2012 at Kathmandu, Nepal
- (xii) Preeti Trivedi, Dr. Ajay Verma, "The Signal to noise and Distortion Ratio for Sigma Delta ADC for SDR 3G/4G mobile Receivers," in **International conference** (ICCESD-2013) held at Malviya National Institute Of Technology (MNIT), Jaipur, Jan. 2013.
- (xiii) Premprakash Semkar, Preeti Trivedi, Amit Naik, "Analysis of Second &Forth Order Sigma Delta Analog to Digital Converter," **International Conference on Information Technology, Electronics &Communication,** held at Hyderabad during 6&7 July 2013.
- (xiv) Akhilesh Kandaria, Dr. Preeti Trivedi, "Rate Optimize Power Allocation and Relay Selection for MIMO two-Way Cognitive Relay Networks With Multiple Relays Using AF Atrategy", Published in IEEE International Conference in Computer, Communication and Control (IC-4 2015), Indore, Sept. 2015.
- (xv) Neha Septa, Preeti Trivedi, Shekhar Sharma, "Secrecy Analysis in large scale cellular Network", published in **20**th **International Conference on Instrumentation, Electrical and Electronics Engg. (ICIEEE 2016)**, Nagpur, 3rd July 2016.
- (xvi) Neha Septa, Preeti Trivedi, Shekhar Sharma," Coverage Analysis with Non-Uniform Deployment" Published in 8th IEEE International conference on Computational Intelligence and Communication Networks (CICN) 2016 during 23rd -25th Dec. 2016, Masoorie.
- (xvii) Nikita Rathore, Preeti Trivedi, Amit Naik, "Software Defined Radio for wireless Communication" in **National conference on "Contemporary Computing** (NC3-2K16) held on 21st and 22nd October 2016, Indore.
- (xviii) Sonal Rohit, Preeti Trivedi, Anjana Jain, "MIMO-WiMAX network analysis using adaptive modulation techniques", published in Proceedings of 12th INDIACom; INDIACom-2018; IEEE Conference ID: 42835 2018. 5th International Conference on "Computing for Sustainable Global Development, 14th-16th March 2018, INDIAComm 2018, Delhi
- (xix) Ankita Mangalmurty, Anjana jain, Preeti Trivedi, "Static mode testing of S-20 Optical Streak Camera", IETE Journal of research (taylor & Francis), May 2024

BOOK CHAPTER

- (i) Sonali Bali, Shekhar Sharma, Preeti Trivedi,"A Novel BPSO-Based Optimal Features for Handwritten Character Recognition Using SVM Classifier "in Springer Book titled" Ambient Communications and Computer Systems" Feb. 2020.
- (c) <u>Member of Editorial Board</u>
- (i) Journal Of Electronics Published by Elsevier
- (ii) Radio Science Journal, 2016.

6.	Awards/ Honours / Special Achievements
(i)	Stood Ist position in Madhya Pradesh in Diploma in Electronics and Television Engg., under Directorate of Technical Education of Madhya Pradesh in 1989.
(ii)	Invited for delivering an expert lecture on "SDR- A modern Approach to mobile Engineering" at TRUBA College of engineering & Technology, Indore on 26 th Feb. 2016.
(iii)	Invited for delivering an expert lecture on "Introduction on Research Methodology", at TRUBA College of engineering & Technology, Indore on 21 st Oct 2016.
(iv)	Expert talk in Joint Webinar with Scientech Pvt. Ltd., Indore on the topic "Software defined radio and its Implementation" on 18 th July 2019.
	defined radio and its Implementation" on 18 th July 2019.

7.	Membership of Professional Societies		
(i)	IE(I)	M-1 38532-6	
(ii)	IETE	LM 49145	
(iii)	ISTE	M 183951	
(iv)	IEEE	Senior Membership	

8.	List of Conference/Workshops Organized
(i)	Organising Committee Member AICTE ISTE induction programme "Radio Day" "Design And development Fabrication Measurement Techniques for next generation antennas" During Nov. 30- Dec.01 and Dec.03-Dec.06, 2018.
(ii)	Organising Committee Member of TEQIP Ph. II Sponsored two days workshop on Academic Institute Satellite and launch" during Feb 17-18, 2017.
(iii)	Co-ordinator of one day airport visit on 27 th jan and 3 rd Feb. 2018 in two batches of 8 visitors in each batch.
(iv)	Co-ordinator of TEQIP Ph.II Sponsored One Week Short Term Course on "Fundamentals and Applications Of SDR and MIMO Communication Systems" During Nov. 30- Dec. 04, 2015 Organized by Deptt. Of Electronics and Telecommunication Engineering ,SGSITS, Indore.
(v)	Organising Committee member in one week short term course on "Recent Trends in Communication Networks" during 8 th Jan'15 to 12 th Jan'15.
(vi)	Organising Committee member in one week short term course on "Fundamentals and Applications of Wireless Communication" during 27 th Jan'14 to 31 st Jan'14.
(vii)	Co-ordinator of TEQIP Ph.II Short Term Course on "Softcomputing Technique in RF and Microwave" Dec'02 –Dec'06, 2013, Conducted at SGSITS, Indore.
(viii)	Co-Coordinator Workshop on "Mobile Communication Technologies-Theory and Applications" during 24-25 June 2005 conducted by SGSITS, Indore.
(ix)	Organizing Committee member in ATAL online FDP on "Recent Trends in Internet of Things" from 20/09/2021 to 24/09/2021

9.	List of Seminars / Workshops/Summer/Winter Courses Attended
(i)	Workshop on "Mobile Communication Technologies-Theory and Applications", during 24-25 June 2005 conducted by SGSITS, Indore.
(ii)	Programme "Development of basic Teaching Competencies" organized by National Institute of technical teachers Training and research, Bhopal during 7-11 Feb 2005 at SGSITS Indore.
(iii)	Workshop on "Test and Measuring Instruments" during 25-26 June 2006, organized by Scientech Technologies Pvt. Ltd. at SVITS Indore.
(iv)	ISTE short term training on "Multimedia Based learning material Development in Technical Education. Applications of ISO in Technical Institutions" during 16-28 May 2005 at SGSITS, Indore.
(v)	A winter school on "Recent Trends in Industrial and Production Engineering" at SGSITS, Indore during 10 th -14 th Nov. 2008.
(vi)	A winter school on speech and audio processing at IIT, KANPUR during 9 th -12 th January 2009.
(vii)	ISTE workshop on "Basic Electronics" organized by IIT, Bombay at remote centre SGSITS,Indore during 28 th June'11 to 8 th July'11
(viii)	ISTE Workshop on "Solar Photovoltaics" organized by IIT,Bombay at remote centre SGSITS,Indore during 12 th Dec.'11 to 22 nd Dec'11.
(ix)	ISTE Workshop on Introduction on research methodologies conducted by IIT Bombay at Remote centre SGSITS, Indore during 25 th June to 4 th July, 2012.
(x)	ISTE Workshop on "Signals and Systems" conducted by IIT Kharagpur at Remote centre SGSITS, Indore during 2 nd Jan'14 to 12 th Jan 14.
(xi)	TEQIP –II sponsored Two days workshop on "Recent Trends in Teacher-Society Relations: Challenges & Opportunities" organized by SGSITS, Indore during 11 th -12 th July 2014.
(xii)	TEQIP Phase –II Sponsored "Recent Trends in Communication Networks" During 8 th Dec. to 12 th Dec. 2014 ,SGSITS, Indore.
(xiii)	One day complimentary seminar on "MATLAB & Simulink for Engineering Education "organized by Mathwork India Private Limited" on 26 th Feb. 2015.
(xiii)	Four weeks ISTE Workshop on "Use of ICT in Education for Online and Blended Learning" during 2 nd May to 10 th July 2016.
(xiv)	One week GIAN Course entitled "Advanced Radar Systems design and signal processing" at IIT, Indore from 18 th Dec. to 22 nd Dec. 2017.
(xv)	Two days Seminar on "Mathematical Techniques in Wireless Networks" organized by Department of Electronics and Telecommunication Engg., SGSITS, Indore during 27 th -28 th October, 2017.
(xvi)	One day FDP on "Recent Research and Innovations in IT" organized by Department of Information Technology "on 7 th Dec. 2017.
(xvii)	One week FDP on "Significance, Securing & Sustainability (S3) of Externally Funded Research Projects in Higher Education Institutes (HEIs)"organized by IIT Indore during 16 th - 21 st Dec. 2019.
(xviii)	Two days IEEE Women in Engineering International Leadership Summit (WIE ILS 2019) organized by IEEE Bangalore during 30 th -31 st Aug. 2019 at Bangalore.
(xix)	Three Days "Professional DevelopmentTrainig Programme Faculty& Administrators

	of Project institutionsd of TEQIP III" during 7 th -9 th Dec. 2020. Organized by IIM
	Vishakapattanam
(xx)	One week ATAL online FDP on "Recent Trends in Internet of Things" from 20/09/2021 to
	24/09/2021 organised by Deptt. Of Electronics and Telecomm., SGSITS Indore
(xxi)	"Online Workshop on NAAC" from 17 th Jan to 22 nd Jan .22 organised by Jharkhand
	Govt. Tool Room .
(xxii)	One week FDP (E & ICT Academy IITK) on "Advanced Excel with Data
	Visualization "during 20 th -25 th July 2021 organized by IIT Kanpur.
(xxiii)	Participated in Conclave on" Fabless and Fab Semiconductor Ecosystem" under
	Madhya Pradesh Vigyan Sammelan & Expo (MPVS-2021) jointly organized by IIT
	Indore, MPCST and Vigyan Bharati during 22nd-25th December, 2021.
(xxiv)	One week Training program on "Online Workshop On NAAC" held from 17 th Jan
	2022 to 22 nd jan. 2022 organized by Jharkhand Government Tool Room, Ranchi.
(xxv)	FDP on Advanced Excel with Data visualization from 20 th to 25 th July 22 organised by
	E&ICT Academy IITK.
(xxvi)	Online training programme on "Institutional readiness on NBA", from 25 th Jan. to 31 st
	Jan 2024 Organised by Jharkhand Govt. Toolroom, Ranchi
(xxvii	-
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10.	Any other relevant information		
(i)	Ph.D Completed in the year of 2014 under the supervision of Dr. Ajay Verma from		
	Devi Ahilya Vishwavidyalaya, Indore.		
(ii)	Reviewer of radio Science journal 2015-16 and 2016-17.		
(iii)	Reviewer of International Journal of Communication systems in 2018-19		
(iv)	Reviewer of LJICT in Sept. 2020		
(v)			

(Dr. Preeti Trivedi)

Associate Professor