



CURRICULUM VITAE

ASHA R.S

Thazhathumanackal House, Asamannoor P.O, Punnam, Perumbavoor, Ernakulam (Dist.) Kerala
(State), Pin-683549, asharspillai@gmail.com, ashars@mec.ac.in, 7561857909, 9400693173

PROFILE:

- Extremely self-motivated Ph.D. candidate with demonstrated research expertise in the reduction of nonlinear distortion in the RoF communication technology
- Research techniques: Modelling of RoF communication system using different modulation methods, reduction of nonlinear distortion and chromatic dispersion
- Rich experience in modeling and computer simulation using Optisystem, MATLAB
- Computer skills: Unix/Linux/Windows; LaTeX; etc.

FIELDS OF RESEARCH INTEREST

- Radio over Fiber Communication
- Free Space Communication
- Reduction of Nonlinearities in RoF communication
- Wavelength Conversion

EDUCATIONAL QUALIFICATIONS

- **PhD** — Thesis submitted in 28th November 2017
(Radio over Fiber Communication)
Thesis Title Performance Improvement of Radio over Fiber Communication System with Dispersion and Nonlinearity compensation
- **ME Communication Systems** — Department of Electronics, KLN College of Engineering, Anna University, Tamilnadu, 2008, 75%
- **UG in Electronics & Communication** — Degree in Electronics and Communication Engineering, Visweswaraya Institute of Engineering and Technology, 2006, GPA- 8
- **Diploma in Electronics & Communication** — Govt. Polytechnic, Punalur, 2002, 81%

- **Pre-Degree in First group** ————— S.G College, Kerala university, Kottarakara, 1999, 67%
- **Diploma in Computer Application** ——— MCC Software Development & Training(Pvt)Limited, 2001, 72.8%
- **S.S.L.C** ——— Govt. Model High School, Vettikavala , Kollam, Kerala 1997, 83%

PROFESSIONAL EXPERIENCE (10 years)

TEACHING EXPERIENCE

- 4 years of teaching experience as assistant professor in the Department of Electronics Engineering, SNG College of Engineering, Kadayiruppu, Kolencherry, Eranakulam (from 24th march 2008- 31st December 2011)

RESEARCH EXPERIENCE

- 6.5 years of research experience in the area of Radio over Fiber Communication

MEMBER OF PROFESSIONAL / TECHNICAL COMMITTEES

- Life time member of ISTE
- Lifetime member of Institution of Engineers, India

REVIEWER OF JOURNALS

- International Journal of Microwave and wireless technologies, Cambridge University journal (Thomson Reuters listed journal)
- American journal of optics and photonics journal (Science publishing group)

PUBLICATIONS

International Journals

1. **Asha.R.S,** Jayasree V.K, Mhatli Sofien, An 80Gbps Multi-Band Access Radio-Over-fiber Link with Single Side Band Optical Millimeter-Wave Dispersion-Tolerant Transmission

without FBG and optical filter, Elsevier journal of Optoelectronics, Vol. 25, January 2017(SCI indexed)

2. **R. S. Asha**, V. K, Jayasree, Sofien Mhatli, Fiber dispersion compensation in single side band optical communication system using ideal fiber Bragg grating and chirped fiber Bragg grating without DCF, Journal of Optics, Springer, Volume 47, Issue 2, pp 148–153, June 2018
3. **Asha R.S**, Jayasree V.K and Mhatli Sofien, Chromatic Dispersion Compensation in 80 Gbps ultra high bit rate long-haul transmission with travelling wave Semiconductor Optical Amplifier, JSIR(CSIR journal, SCI-indexed) (published in April 2018)
4. **Asha R.S**, Jayasree V.K, Simulative Investigation of Coherent Optical OFDM with Nonlinear Distortions in the wireless channel and Receiver, Journal of Optical communication, Degruyter publishers(September 2016) (SCOPUS indexed)
5. **Asha.R.S**, Jayasree V.K, Square Root Nonlinear Equalizer to Combat the Nonlinear Distortion in Single Sideband ROF Communication, Mediterranean journal of Electronics and Communication, volume 1, Number 11, 2015 (INSPEC)
6. **R.S. Asha** and Jayasree V.K, Simulative Investigation of Coherent Optical OFDM Communication with Gbits/s Data Rates, Bonfring International Journal of Research in Communication Engineering, Vol. 5, No. 3, October 2015
7. Jayasree Vadakke Kadangote, Neethu Johnney, **Asha Radhamany Somasekharan**, Comparison of Different Chromatic Dispersion Compensation Techniques in Radio over Fiber System, American Journal of Optics and Photonics 2015; 3(2): 24-29 Published online August 9, 2015
8. **Asha.R.S**, Jayasree V.K, An Optical Double Sideband Carrier Suppressed ROF Transmission system with Reduced Photo detector Nonlinearity, International Journal of Computer and Communication System Engineering (IJCCSE), Vol. 2 (4), 2015, 614-619
9. **Asha R.S**, Jayasree V.K, Neethu S.Johnney, Fiber Nonlinearity Compensation for Radio Over Fiber CO-OFDM Systems with Mid Span Spectral Inversion, International Journal of Computer and Communication System Engineering (IJCCSE), (August 2015), (indexed in Thomson Reuters web of science)
10. **Asha R. S**, Jayasree V.K ,Performance Evaluation of SNR in Radio Over Fiber Systems for Different Modulation Schemes in AWGN Channel and Fading Channels, International Conference on Microelectronics, Communication and Renewable Energy (ICMiCR- 2013) (also published in IEEE xplora)
11. Veneetha Nair , Joseph George K.N, **Asha R.S**, Performance analysis of direct detection and coherent detection system for optical OFDM using QAM and DPSK, IOSR Journal of Engineering (Vol.3,Issue7,PP24-29, july2013)

International Conferences

1. **Asha R. S**, Jayasree V.K , A Peer-To-Peer 200GHz Millimeter-Wave long haul Radio-Over Fiber Access Networks through AWGN channel (Optical Society of America Conference, PHOTONICS-16),published in Optics Infobase-2016
2. **Asha R. S**, Jayasree V.K ,Performance Evaluation of SNR in Radio Over Fiber Systems for Different Modulation Schemes in AWGN Channel and Fading Channels, International Conference on Microelectronics, Communication and Renewable Energy (ICMiCR-2013)
3. Minni J Kappen, **Asha R S** and Jayasree V K, Comparison of All Optical Wavelength Conversion Techniques using SOA Nonlinearities, SPAAC'16
4. Revathy Nagesh, **Asha R.S**, Dispersion Management in Radio over Fiber Link using Optical Solitons, CCCSP 2016, published in MC Graw Hill Publications
5. Revathy Nagesh, **Asha.R.S**, Dispersion management in radio over fiber communication systems using optical solitons,REAREST'16(published in Elsevier Procedia's technology journal)
6. Sarath Ganga, **Asha.R.S**,Shaija Johnson, Design of a Standardized Inter Satellite Optical Wireless Communication (IsOWC) System with Minimum Input Power,REAEREST'16(published in Elsevier Procedia's technology journal)
7. Minni J Kappen, **Asha R S**, 10 Gbps Externally Modulated XGM based Wavelength Conversion Using SOA,REAREST'16 (published in Elsevier Procedia's technology journal)
8. **Asha R.S** , 'Performance analysis of DFT and DCT OFDM', Emerging Trends in Information & Communication Engineering – ETICE 2008, PET Engineering College – Valliyoor

NATIONAL CONFERENCE

- ♦ **Asha R.S**,Jayasree V.K, Performance comparison of Optical OFDM Radio over Fiber Communication with Coherent Detection, National Conference on Power, Control,Communication and Computing (NPCCC'17)

KEYNOTE LECTURE DELIVERED

- Short Term Training on optical communication system design, 3 - 8 february , 2014

MTECH PROJECTS GUIDED

Guided eight PG students in their projects

WORKSHOPS ATTENDED

- Participated 3days workshop on wireless computing and mobile Ad-hoc n/ws held at Sahrdaya college of engineering and technology on February 2010
- Participated the Annual photonics Workshop is organized by ISP and CELOS at CUSAT on February 2012
- Participated the one day seminar on Educational Utilization of standards held on October 2008 is organized by Bureau of Indian Standards, Thiruvananthapuram
- Successfully completed the project work entitled ' Embedded guest information system in RS technologies from October 2004-january 2005

COURSES ATTENDED

- Successfully completed the FDP organized by ISTE chapter of SNGCE on November 2009
- Attended the complementary seminar in MATLAB and Simulink for Engineering education at cochin on 24/08/2011
- Participated the AICTE sponsored National conference on january2013 held at Model Engineering College, Thrikkakara, Ernakulam
- Participated five days FDP on VLSI and Embedded systems conducted by department of ECE with ISTE chapter of SNGCE on January 2011
- Participated in Karma 2008, National student level technical conference and project expo organized by department of ECE,SNGCE, on April 2008

PERSONAL DETAILS

- **Date of birth:** 23/05/1982
- **Place of birth:** Kottarakara, Kollam,Kerala, India
- **Languages known:** Malayalam, English, Hindi and Tamil