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**Name:** AYYANAR. N

**Mobile:** 9659852418

**Email:** [inrsri@gmail.com](mailto:inrsri@gmail.com)

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### PROFESSIONAL EXPERIENCE

Experience : 1 year and 1 month (Dec 2015 to till date)  
Organization : DHIRAJLAL GANDHI COLLEGE OF TECHNOLOGY  
Designation : Assistant Professor  
Department : Electronics and Communication Engineering  
Mode : Full Time  
Website : [www.dgct.ac.in](http://www.dgct.ac.in)

### EDUCATIONAL QUALIFICATION

Course	Year	Institution	CGPA/%
M.E(optical communication)	2013-15	Alagappa Chettiar College of Engineering and Technology, karaikudi	8.279
B.E(ECE)	2010-13	Narasu's sarathy institute of technology, salem.	8.1
Diploma in ECE	2007-10	Thiagarajar polytechnic college, salem	96.5
SSLC	2006-07	The Gugai Higher Secondary School, salem	90

### RESEARCH AND FIELDS OF INTEREST

- Photonic Crystal Fiber for sensor application.
- Fiber design for SDM application
- Optical Communication

### STRENGTHS

- Self-Motivated
- Pro activeness

### PROJECT UNDERTAKEN BY PG

**Title:** Optimization of highly negative dispersion at L band region in quadruple clad profile.

**Description:** To optimize the highly negative dispersion at L band (1565-1625nm) region in various quadruple clad profiles with variations of core and cladding radius and also refractive index.

## RESEARCH PUBLICATIONS

### International conference:

1. **N.Ayyanar**, M. Sumathi, D. Vigneswaran, R. Vasantha Jayakantha Raja and M.S. Manirajan, "Design of twisted dual core photonic crystal fiber for sensing application", Conference on Nonlinear Systems & Dynamics, IISER Kolkata, 16-18 December 2016.
2. **N.Ayyanar**, M. Sumathi, D. Vigneswaran and M.S. Manirajan "Design of temperature sensor using liquid filled photonic crystal fiber" Conference on Recent Advances in Light wave Technology, IEEE Photonics Society, Bangalore Chapter, September 21-23, 2016.
3. **N.Ayyanar**, Sumathi and vigneswaran, "Temperature sensor with enhanced sensitivity in photonic crystal fiber" IEEE CRALT 2016, Bangalore.
4. **N.Ayyanar**, M.Sumathi, D.Vigneswaran, M.S. Mani Rajan., "Soliton Propagation in tapered fiber", International conference on Electrical, Electronics and Communication, ACCET, March 31,2016.
5. D.vigneswaran, S.Rajkumar, **N.Ayyanar**., "Effect of temperature for different types of erbium doped fiber in dual stage syste", International Conference On Emerging Trends In Engineering & Technology, Mar 2016.
6. T. Savari Manonmani, D.Vigneswaran, **N.Ayyanar** and C.Mahendran., "Analysis of Temperature based Power Spectrum in EDFA and YDFA with different pump power", International conference in Innovative Research in Electrical, Electronics and Computing Engineering organized by IISRT at Chennai on 5<sup>th</sup> May, 2015.
7. **N.Ayyanar**, and I.Muthumani, "Analysis and Optimization of Negative Dispersion and Losses in Conventional optical fiber using various Quadruple Clad profile", International conference on Advances in computing, communication, automation and structural engineering, Al-Ameen engineering college, erode, 10-11<sup>th</sup> April 2015.
8. **N.Ayyanar**, D.Vigneswaran and Dr.R.Vasantha Jayakantha Raja, " Modeling Asymmetric Hybrid Photonic Crystal Fiber Coupler for Generating power dependent Time Delay", FOP-42, 1st International conference on optoelectronics and photonic materials (ICOPMA-2015), SASTRA University, Thanjavur, India, 27-28<sup>th</sup> February 2015.
9. **N.Ayyanar**, and I.Muthumani, "Optimization of highly Negative Dispersion at L-band region in quadruple clad profile", International conference in Innovative Research in Electrical, Electronics and Computing Engineering organized by IISRT at Coimbatore on 13<sup>th</sup> Dec, 2014.

**National Conference:**

1. **N. Ayyanar**, M. Sumathi, D. Vigneswaran., “Investigation of super continuum generation using novel structure of Ring profile PCF”, National conference on Emerging trends in Engineering, Apr 2,2016.
2. **N.Ayyanar**, M.Sumathi, D.Vigneswaran and R. Vasantha Jayakantha Raja., “Liquid Filled Dual Elliptical Core Photonic Crystal Fiber for Temperature Sensor”, National Conference on Nano Photonics, Mar 17-18,2016.
3. **N.Ayyanar**, D.Vigneswaran, M.S. Mani Rajan, H. Thenmozhi and V. Devika, “Dispersion characteristics and confinement loss in a tapered fiber”, National Conference on Nano Photonics, Mar 17-18, 2016.
4. **N. Ayyanar**, M. Sumathi, D. Vigneswaran, M.S. Mani Rajan, “Design Of Elliptical Ring Core Fiber With Support Of Four LP Modes in SDM Applications”, National Photonics symposium and annual workshop, CUSAT cochin, Feb 26-28 2016.
5. Muppudathi@Saravanan, **N.Ayyanar**, D.vigneswaran and MohitSharma, “Design and optimization of negative dispersion in quadruple clad profile using photonic crystal fiber at C and L band region”, National Conference on Advances in Technology and Science, Info institute of engineering, Coimbatore 16 and 17<sup>th</sup> April 2015.
6. **N.Ayyanar**, D.Vigneswaran and I.Muthumani, “RZ based Dispersion compensation Techniques in DWDM system for Broadband spectrum. National conference on Optics, Photonics and LASERS, Arul Anandar college, Madurai, 17 and 18<sup>th</sup> July 2014, ISBN:978-81-921895-0-6.
7. **N.Ayyanar**, P.Kamaraj and R.Mohankumar, “Wireless based hearing by teeth”, 6<sup>th</sup> Annual conference on Emerging Technologies, M.kumarasamy college of engineering, karur.13<sup>th</sup> Feb 2013. (UG level).
8. **N.Ayyanar**, M.Wilfred and P.Arul, “Design and implementation of an embedded home surveillance system with ultra-low alert power”, National conference Elektronik and Communicare, Erode Sengunthar Engineering college, Erode, 3<sup>rd</sup> March 2012. (UG level)

**Journal:**

1. **N.Ayyanar**, R. Vasantha Jayakantha Raja, D. Vigneswaran, B. Lakshmi, M. Sumathi, and K. Porsezian, “Highly efficient compact temperature sensor using liquid infiltrated asymmetric dual elliptical core photonic crystal fiber” Journal of Optical Material- 64 (2017) 574-582 (Elseiver).

2. **N.Ayyanar**, D. Vigneswaran, Mohit Sharma, M. Sumathi, M.S. Mani Rajan and S. Konar, “Hydrostatic Pressure Sensor Using High Birefringence Photonic Crystal Fibers”, IEEE Sensor Journal (Accepted)
3. **N.Ayyanar**, and I.Muthumani, “Optimization of highly Negative Dispersion at L-band region in quadruple clad profile”, International Journal of Electrical, Computing Engineering and Communication (IJECC) Vol. 1, Issue. 1, January – 2015 ISSN (Online): 2394-8310.
4. Muppudathi@Saravanan, **N.Ayyanar**, D.Vigneswaran and MohitSharma, “Design and optimization of negative dispersion in quadruple clad profile using photonic crystal fiber at C and L band region”, International Journal of Applied Engineering Research, ISSN 0973-4562 Vol. 10 No.29 (2015), Annexure 2.
5. **N.Ayyanar** and I.Muthumani, “Analysis and optimization of negative dispersion and losses in conventional optical Fiber using various Quadruple Clad Profile”, International Journal of Applied Engineering Research, ISSN 0973-4562 Vol. 10 No.38 (2015) Annexure 2.
6. Muppudathi@Saravanan.A, Hemadevi.N, **Ayyanar.N.**, “Analysis of Effective Mode Index and its mode coupling in Three Core Linear Fibre Waveguide”, International Journal of Advanced Research in Electronics and Communication Engineering (IJARECE) Volume 4, Issue 12, December 2015.

#### **RESEARCH COLLABORATION:**

- Dr. K.Porsezian, Pondicherry university, Pondy.
- Dr.S. Balaji Srinivasan, IIT, Madras.
- Dr. R.Vasanth jeyakantha Raja, Sastra university, Tanjore .
- Dr.M.S.Manirajan, Anna University Ramanathapuram.
- Dr.Wilson Joseph, Arulanadanr arts College, Madurai.
- Mohit sharma , BITS, Ranchi.
- D.Vigneswaran, Vaigai college of Engineering, Madurai.
- R.Yamunadevi, SRF, Sastra university, Tanjore.

#### **TRAINING AND WORKSHOP**

1. Participated FDP on Innovative methods in Teaching in DGCT.
2. Attended FDP on “Demystifying Electronic System Design and Engineering”
3. “National Photonics symposium and annual workshop”, CUSAT cochin, Feb 26-28 2016.

4. “National level workshop on LASER Optic Instrumentations”, Alagappa Chettiar college of engineering and technology, karaikudi from 15 and 16<sup>th</sup> Sep 2014.
5. “Optical communications and network design using Optisim and Metrowand”, B.S. Abdur Rahman University, Chennai from 22 and 23<sup>rd</sup> Jan 2014.
6. “Research Issues in optical communication and Networks”, Alagappa Chettiar college of engineering and technology, karaikudi from 3 to 9<sup>th</sup> Dec 2014.
7. A special training programme on Optical Fiber Technology organized by BSNL MADURAI SSA from 3 to 7th March 2014.
8. In plant training from 11.5.2009 to 15.5.2009 at Low power Transmitter, yercaud, salem.

## **SIMULATION TOOL**

- Optisystem
- Optifiber
- COMSOL Multiphysics

## **ACHIEVEMENTS**

- Won the first prize in project expo at Er. Perumal Manimakalai college of Engineering, Hosur.
- Won the third prize in paper presentation at Nanjiah lingammal polytechnic college, Coimbatore.
- Won in inter college annual sports as **runner** in ball badminton at Thiagarajar polytechnic college.
- Divisional tournament for men 2009-10 achieved **runner** in ball badminton at Salem polytechnic college.
- Won in inter college annual sports as **winner** in ball badminton at Thiagarajar polytechnic college.
- The certificate of “C” examination in B grade held in 2009 under the NCC.
- The certificate of “B” examination in B grade held in 2008 under the NCC.

## **PERSONAL DETAILS**

Father’s name : M. Natesan  
Mother’s name : N.Poongavanam  
Date of Birth : 01-01-1992  
Sex : Male  
Marital Status : Single  
Language know : Tamil and English  
Permanent Address : 58/21-1, Kumaran Nagar 2<sup>nd</sup> street, Dadagapatty, Salem-636006,  
TamilNadu, India.