DETAILS OF EDUCATION AND RESEARCH

CURRICULUM VITAE

DR. AJAY KUMAR

Assistant Professor,
Department of Electronics and Communication Engineering,
National Institute of Technology, Jamshedpur
Ph.D., Department of Electronics Engineering,
Indian School of Mines, Dhanbad,Jharkhand-826004.
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CAREER OBJECTIVE

My aim is to perform an effective teaching and quality research in field of Electronics and Communication Engineering.

ACADEMIC RECORDS

Examination	Board/College	Percentage	Year
X	B.S.E.B, Patna	67.77	2000
XII	J.I.E.C, Ranchi	73.33	2002
B.Tech Instrumentation and Electronics engineering	B.P.U.T,Orissa,Rourkela	78.70	2010
M.Tech Electronics and communication engineering	Indian School of Mines, Dhanbad	89.70	2012
Ph. D. Electronics and communication engineering	Indian School of Mines, Dhanbad	------	2016

ABOUT MY Ph.D. (Ph.D. Awarded)

Ph.D. Proposed Title:	Design and Implementation of Some Optical Logic Devices using Electro-optic Effect based Mach-Zehnder Interferometer Structure
Research area of Ph.D. work:	Optical Fiber Communication and Optical logic devices
Month & Year of joining/registration of Ph.D. Program:	06 Aug., 2012

Name of Ph.D Supervisor:

Dr. Sanjeev Kumar Raghuwanshi,
B. E.(SGS ITS Indore), M. Tech. (I. I. T. Kharagpur),
Ph. D. (I. I. Sc. Bangalore)
Assistant Professor, Department of Electronics Engineering, Indian School of Mines, Dhanbad, Jharkhand, India.

M. Tech PROJECT

Optical Filter Design and Analysis for the Signal Processing.

RESEARCH ACHIEVEMENTS/ AWARDS

- MHRD Scholarship receiving during Ph.D. programs.
- Graduate Aptitude Test in Engineering (GATE-2010, EIE) Qualified (Percentile 97.69).

Teaching Experience Details

Sl. No.	Institute/Organization	Start Date	End Date	Duration	Designation	Nature of work	Pay Scale
1.	NIT, JAMSHEDPUR	13/07/2015	12/07/2016	1 YEARS	AD-HOC FACULTY	CONTRACTUAL (TEMPORARY)	NA
2.	NIT, JAMSHEDPUR	18/07/2016	17/07/2017	1 YEARS	AD-HOC FACULTY	CONTRACTUAL (TEMPORARY)	NA
3.	NIT, JAMSHEDPUR	02/08/2017	31/12/2017	9 MONTHS	TEMPORARY FACULTY	CONTRACTUAL (TEMPORARY)	NA
4.	NIT JALANDHAR	24/01/2018	22/06/2018	6 MONTHS	ASSISTANT PROFESSOR (6000/ AGP)	REGULAR	6000 / AGP
5.	NIT, JAMSHEDPUR	26/06/2018	CONTINUE	12 MONTHS	ASSISTANT PROFESSOR (6000/ AGP)	REGULAR	6000 / AGP

PUBLICATIONS

INTERNATIONAL SCI JOURNALS

[1]. **Ajay Kumar**, Manish Kumar, Sumit Kumar Jindal, Sanjeev Kumar Raghuwanshi, "Implementation of All-Optical Active low/high Tri-state Buffer logic using the Micro-Ring Resonator Structures," Optical and Quantum Electronics (Springer Nature), Vol. 51, pp: 191-208, 27 May 2019, https://doi.org/10.1007/s11082-019-1898-5.

[2]. **Ajay Kumar**, "Implementation of All - Optical NAND Logic Gate and Half-Adder Using the Micro-Ring Resonator Structures," Optical and Quantum Electronics (Springer) , Vol. 48, pp: 477-489, October, 2019, DOI: 10.1007/s11082-016-0747-z.(*2015 Thomson ReutersImpact Factor: 1.290).*

[3]. **Ajay Kumar**, "Application of micro-ring resonator as high speed optical gray code converter," Optical and Quantum Electronics (Springer), Vol. 48, pp: 460 – 474, 9 September 2016. DOI 10.1007/s11082-016-0737-1.(*2015 Thomson ReutersImpact Factor: 1.290).*

[4]. **Ajay Kumar**, Sanjeev Kumar Raghuwanshi, "Implementation of optical gray code converter and even parity checker using the electro-optic effect in the Mach-Zehnder interferometer" Optical and Quantum Electronics (Springer) Vol. 47, Issue 7, pp 2117-2140, July 2015. DOI 10.1007/s11082-014-0087-9 (*2012 Thomson ReutersImpact Factor: 1.07).*

[5]. **Ajay Kumar**, Santosh Kumar, S. K Raghuwanshi, "Implementation of Full-adder and Full-subtractor based on Electro-optic Effect in Mach-Zehnder interferometers," Optics Communications (Elsevier), Vol. 324, PP. 93 – 107, 2014 (*2012 Thomson ReutersImpact Factor: 1.438).*

[6]. **Ajay Kumar**, Santosh Kumar, S. K Raghuwanshi, "Implementation of XOR/XNOR and AND Logic Gates using Mach-Zehnder interferometers," *Optik (Elsevier),* Vol. 125, PP. 5764-5767, *(May 29, 2014)* (*2012 Thomson ReutersImpact Factor: 0.524) https://doi.org/10.1016/j.ijleo.2014.07.037.*

[7]. **Ajay Kumar**, Sanjeev Kumar Raghuwanshi, "Realization of optical digital magnitude comparator using electro-optic effect-based Mach-Zehnder Interferometer structure," Journal of Nano-electronics and Optoelectronics (American Scientific Publisher), Vol. 10, No. 6, pp. 1-10, December, 2015. https://doi.org/10.1166/jno.2015.1838 (*2012 Thomson ReutersImpact Factor: 0.479).*

[8]. **Ajay Kumar**, Sanjeev Kumar Raghuwanshi, "Electro-optic Mach-Zehnder interferometer based optical digital Magnitude comparator and 1's complement calculator, " J. Opt. Commun, DOI 10.1515/joc-2015-0028 (August 20, 2015) (*2015 Thomson ReutersImpact Factor: 0.32)*.

[9]. **Ajay Kumar,** Sanjeev Kumar Raghuwanshi, "Implementation of some high speed combinational and sequential logic gates using micro-ring resonator," Optik - International Journal for Light and Electron Optics Vol. 127, PP. 8751-8759, (June, 2016), https://doi.org/10.1016/j.ijleo.2016.06.061 (*2012 Thomson ReutersImpact Factor: 0.524).*

[10]. **Ajay Kumar,** Basudeba Behera, Manish Kumar, Sumit Jindal, Mayank Srivastava, "Implementation of All-Optical Ripple Down Counter using the Micro-Ring Resonator Structures," Applied Physics B: Lasers and Optics (Springer), Vol: 127, no. 14, pp 1-9Accepted: (November 22, 2020), Published: (12 January, 2021) https://doi.org/10.1007/s00340-020-07555-9.

[11]. **Ajay Kumar,** Manish Kumar, Sumit Kumar Jindal, Sanjeev Kumar Raghuwanshi, Rakesh Choudhary, "Implementation of All-Optical 1×4 memory register unit using the Micro-Ring Resonator Structures," Accepted in Optical and Quantum Electronics (Springer), Date of Acceptance: 15 July, 2021.

[12]. **Ajay Kumar,** Mayank Srivastava, Devesh Kumar**, "**New All-Optical Realizations of Multiplexer Logic using Micro-Ring Resonators,**"** Brazilian Journal of Physics (Springer), Date of Acceptance: 18 August, 2021.

[13]. Sumit Kumar Jindal, Yogesh Kumar Agarwal, Shrishti Priya, **Ajay Kumar**, Sanjeev Kumar Raghuwanshi. "Design and Analysis of MEMS Pressure Transmitter using Mach-Zehnder Interferometer Artificial Neural Networks," IEEE Sensor Journal, Vol. 18, no. 17, pp. 7150 – 7157 10.1109/JSEN.2018.2852006 (September 01, 2018).

[14]. Sanjeev Kumar Raghuwanshi, **Ajay Kumar**, Nan K Chen, "Implementation of Sequential logic circuits using the Mach-Zehnder interferometer based on Electro-optic effect," Optics Communications (Elsevier), Vol. 333, PP. 193-208, 2014. https://doi.org/10.1016/j.optcom.2014.07.066 *(2012 Thomson ReutersImpact Factor: 1.438).*

[15]. Sanjeev Kumar Raghuwanshi, **Ajay Kumar**, Azizur Rahman, "Implementation of high speed optical universal logic gates using the electro-optic effect based Mach-Zehnder interferometer," Journal of Modern Optics (Taylor and Francis), Vol. 62, No. 12, Feburary2015http://dx.doi.org/10.1080/09500340.2015.1015636 *(2012 Thomson Reuters Impact Factor: 1.163).*

[16]. S. K. Raghuwanshi, **Ajay Kumar**, Santosh Kumar, "1 × 4 Signal Router Using 3 Mach-Zhender Interferometers," *Optical Engineering (SPIE)*, Vol. 52, No. 03, PP. 035002, (March 04, 2013); doi: 10.1117/1.OE.52.3.035002 *(2012 Thomson Reuters Impact Factor: 0.88).*

[17]. S. K Raghuwanshi, **Ajay Kumar**, "A New Semi – Analytical Method for The Analysis of Tapered Optical Waveguides," *Optik (Elsevier),* Vol. 125, PP. 7215-7221, (July 20, 2014) https://doi.org/10.1016/j.ijleo.2014.07.133*(2012 Thomson Reuters Impact Factor: 0.524).*

[18]. Manish Kumar, **Ajay Kumar,**Sumit Kumar Jindal, Sanjeev Kumar Raghuwanshi, "Comprehensive Study of All-In-One Simultaneous Multiple Optical Logic Devices using Mach-Zehnder Interferometer based on Electro-optic Effect," Accepted in IETE Technical Review(Taylor & Francis), Date of Acceptance: 15 February, 2021.

[19]. Sanjeev Kumar Raghuwanshi, Santosh Kumar, **Ajay Kumar,** "Dispersion characteristics of complex refractive-index planar slab optical waveguide by using finite element method," Optik (Elsevier), Vol. 125, PP. 5929-5935, (May 19, 2014), https://doi.org/10.1016/j.ijleo.2014.05.049(*2012 Thomson ReutersImpact Factor: 0.524).*

[20]. Santosh Kumar, S. K. Raghuwanshi, **Ajay Kumar**, "Implementation of Optical Switches by using Mach-Zehnder Interferometer," *Optical Engineering (SPIE)*, Vol. 52, No. 9, PP. 097106, (Sep. 20, 2013); doi: 10.1117/1.OE.52.9.097106 (*2012Thomson ReutersImpact Factor: 0.88).*

[21]. S. K. Jindal, S. K. Raghuwanshi, **Ajay Kumar** "Realization Of MOEMS Pressure Sensor Using Mach Zehnder Interferometer," *Journal of Mechanical Science and Technology, Springer,* Vol. 29, No. 9, PP 3831 – 3839. 10.1007/s12206-015-0829-z (April 23, 2015)*(Thomson Reuters Impact Factor: 0.707).*

[22]. Sanjeev Kumar Raghuwanshi, Manish Kumar, Sumit Kumar Jindal, **Ajay Kumar,** Om Prakash "High Se nsitivity Detection of Hazardous Chemical by Special Featured Grating Assisted Surface Plasmon Resonance Sensor based on Bimetallic Layer," IEEE Transaction on Instrumentation and Measurement, Vol. 69, no. 7, pp. 5072-5080, print ISSN: 0018-9456, Online ISSN: 1557 - 96626 July, 2020 DOI: 10.1109/TIM.2019.2952705.

[23]. Rajiv Kumar, **Ajay Kumar,** Poonam Singh, Niranjan Kumar, "All optical pseudo noise sequence generator using a micro-ring resonator," Frontier of Optoelecrtonics (Springer), (15 May, 2020, Published on 24 June 2020) doi: https://doi.org/10.1007/s12200-020-0947-9.

[24]. Sumit Kumar Jindal, Ritobrita De, **Ajay Kumar,** Sanjeev Kumar Raghuwanshi, "Novel MEMS Piezoresistive Sensors with Hair-Pin Structure to Enhance Tensile and Compressive Sensitivity and Correct Non-Linearity," Journal of Electronic Testing : Theory and Applications (Sprnger), Vol. 36, No. 4,Accepted: (07 July, 2020) Published: (16 July, 2020), DOI: https://doi.org/10.1007/s10836-020-05895-0

[25]. Sumit Kumar Jindal, KrishSethi, Ishan Patel, **Ajay Kumar**, Sanjeev Kumar Raghuwanshi, "A Semi Analytical and Computationally Efficient Method to Calculate the Touch-Point Pressure and Pull-in Voltage of a MEMS Pressure Sensor with a Circular Diaphragm," IEEE SENSOR JOURNAL. Vol. 21, No. 2, Date of Publication: 24 August,2020 DOI: 10.1109/JSEN.2020.3019205 **(SCI).**

[26]. Kishan Kumar, Shulin Saraswat, Sumit Kumar Jindal, **Ajay Kumar**and Sanjeev Kumar Raghuwanshi, "Experimental Validation of an IOT based Device Selective Power Cut Mechanism using Power Line

Carrier Communication for Smart Management of Electricity," Journal of Electrical Engineering & Technology, Springer, vol. 16, pp: 67-77, Published: (13 October, 2020).https://doi.org/10.1007/s42835-020-00568-6

INTERNATIONAL JOURNALS

[1]. S. K. Raghuwanshi, **Ajay Kumar** and Santosh Kumar, "Analytical Study of Finite/Infinite Impulse Response Optical Filter for Signal Processing Application," *International Journal of Communication Systems and Networks,*Korea,Vol. 1, No. 2, PP. 80-86, 2012.

[2]. **Ajay Kumar**, Sanjeev Kumar Raghuwanshi, Santosh Kumar, "53nm Wavelength Tunability due to a Curvature of S-Bend in Optical Power Splitter," *The International Journal of Engineering and Science (IJES)*, Vol. 2, Issue 7, PP. 60-77, 2013.

NATIONAL JOURNALS

[1]. **Ajay Kumar**, Santosh Kumar, S. K Raghuwanshi, "Implementation of All-Optical Logic Gate using parallel SOA-MZI Structures," *Trends in Opto Electro and Optical Communications (STM)*, Vol. 3, Issue 3, PP. 13-21, 2013.

[2]. Santosh Kumar, S. K. Raghuwanshi, **Ajay Kumar**, "Analysis of Parabolically versus Exponentially Tapered Inbuilt Chip-to-Fiber Butt Coupler" *Journal of Communication Engineering & Systems (STM)*, Vol 3, No 1, PP. 11-15, 2013.

[3]. **Ajay Kumar**, S. K. Raghuwanshi, Santosh Kumar, "Effect on modal-index due to an etched film thickness in three-dimensional ridge waveguide," *i-manager's Journal on Communication Engineering and Systems,* Vol. 2, No. 1, PP. 26-31, Nov. 2012 - Jan. 2013.

[4]. S. K. Raghuwanshi, Vikram Palodiya, **Ajay Kumar**, Santosh Kumar, "Experimental characterization of fiber optic communication link for digital transmission system," *ICTACT Journal on Communication Technology*, Vol. 5, Issue 1, March 2014.

COMMUNICATED JOURNALS

[1]. Ajay Kumar, Manish Kumar, Sumit Kumar Jindal, Sanjeev Kumar Raghuwanshi, "Implementation of All Optical 4-bit memory register unit using the Micro-Ring Resonator Structures," Optical and Quantum Electronics (Springer), (Communicated publication).

[2]. Ajay Kumar, Rajiv Kumar, "Implementation of high speed all optical pseudo-random sequence generator using micro-ring resonator structure," communicated in Optical and Quantum Electronics (Springer).

[3]. Ajay Kumar, "Design of Micro-ring resonator based all optical signal Routers," communicated in Optical and Quantum Electronics (Springer).

[4]. Ajay Kumar, "Implementation of all optical shift register using the micro-ring resonator," communicated in Optical and Quantum Electronics (Springer).

[5]. Ajay Kumar, "Implementation of All optical Even Parity checker and Magnitude Comparator using the Micro-ring resonator structures," communicated in Optical engineering (SPIE).

INTERNATIONAL/NATIONAL CONFERENCES : (INDIA)

[1]. **Ajay Kumar**, S. K. Raghuwanshi, Santosh Kumar, "Analysis of various optical filtering techniques," presented in *International Conference of Microwave and Photonics 2013 (ICMAP-2013)*, Dhanbad, Dec. 13-15, 2013. 10.1109/ICMAP.2013.6733518 [Presented in person]

[2]. Vikram Palodiya, Santosh Kumar, **Ajay Kumar**, S. K. Raghuwanshi, "Dispersion properties of solid core Bragg fiber having an arbitary refractive index core profile for DWDM applications," *International Conference of Microwave and Photonics 2013 (ICMAP-2013)*, Dhanbad, Dec. 13-15, 2013 [Presented in person]

[3]. S. K. Raghuwanshi, **Ajay Kumar**, and Santosh Kumar, "Design and analysis of finite/infinite impulse response optical filter for signal processing," *International Conference on Communication Systems and Network Technologies (CSNT-2012)*, Rajkot, India, May 11-13, 2012, *IEEE Xplore,* Digital Object Identifier: 10.1109/CSNT.2012.120, PP. 529-533.

[4]. **Ajay Kumar**, S. K Raghuwanshi, Santosh Kumar, "Photonic crystal fiber sagnac loop as a flat top comb-filter," *National Conference on Emerging Trends in Engineering and Science (ETES) 2014*, Asansol, Jan. 30-31, 2014. 10.1117/12.902736 [Presented in person]

[5]. Vikram Palodiya, S. K. Raghuwanshi, **Ajay Kumar**, Santosh Kumar, "Effect of various parameters on $LiNbO_3$ modulator using Sellmeier's equation," *National Conference on Emerging Trends in Engineering and Science (ETES) 2014*, Asansol, Jan. 30-31, 2014. [Presented in person].

[6]. Rajiv Kumar, Niranjan Kumar, Poonam Singh, **Ajay Kumar**, "All optical Micro-ring Resonator based optical XOR and XNOR logic gate" International Conference on Recent Innovation in Electrical , Electronics & Communication Engineering (ICRIEECE) 2018, School of Electrical Engineering Kalinga Institute of Technology (KIIT), July. 27-28, 2018,

[7]. Rajiv Kumar, Niranjan Kumar, Poonam Singh, **Ajay Kumar**, "All optical Single Bit Magnitude Comparator using the Micro-ring Resonator Structures," International Conference on Recent Innovation in Electrical, Electronics & Communication Engineering (ICRIEECE) 2018, School of Electrical Engineering Kalinga Institute of Technology (KIIT), July. 27-28, 2018.

[8]. Rajiv Kumar, Niranjan Kumar, Poonam Singh, **Ajay Kumar**, "Design Turbo code generator in optical domain using Mach-Zehnder interferometer", accepted for presentation in International Conference on Computing Power and Communication Technologies (GUCON 2019) (IEEE Conference Record No. 47222) organized by Galgotia University (GCET Campus), Greater Noida, NCR New Delhi, 27-29 September, 2019.

[9]. Prashant Shekhar, **Ajay Kumar**, Amir Ahmad, Mayank Srivastava, "All optical OR/NOR logic gate using the Micro-ring Resonator based Switching Activity" International Conference on Electrical, Electronics and Computer Engineering (UPCON), ALIGARH, India, India 10.1109/UPCON47278.2019.8980176.

[10]. Manish Kumar, **Ajay Kumar**, Sanjeev Kumar Raghuwanshi," Design and Analysis of Trench - based novel structure for high sensitive surface plasmon resonance sensor," SPIE 11274, Physics and Simulation of Optoelectronic Devices XXVIII, 2nd march 2020 https://doi.org/10.1117/12.2545464.

[11]. Rakesh Choudhary, SushantaMahanty, **Ajay Kumar**, Rajiv Kumar, BasudebaBehra," Design of micro-ring resonator based all optical signal routers," National Conference on Electronics, Communication and Computation (NCECC-2020), Organised by Department of ECE, National Institute of Technology Jamshedpur and TEQIP-3 (Govt. of India), 5th – 6th September2020, Scopus, DOI Pending.

[12]. SushantaMahanty, Rakesh Choudhary,**Ajay Kumar**, Rajiv Kumar, BasudebaBehra, "Implementation of all-optical even parity checker using the micro-ring resonator structure," National Conference on Electronics, Communication and Computation (NCECC-2020), Organised by Department of ECE, National Institute of Technology Jamshedpur and TEQIP-3 (Govt. of India), 5th – 6th September2020, Scopus, DOI Pending.

[13]. Niraj Kumar, Rakesh Choudhary, SushantaMahanty and **Ajay Kumar, "**Design and Simulation of All Optical NOT logic gate using Micro-ring Resonator,"National Conference on Electronics, Communication and Computation (NCECC-2020), Organised by Department of ECE, National Institute of Technology Jamshedpur and TEQIP-3 (Govt. of India), 5th – 6th September2020, Scopus, DOI Pending.

[14]. Rakesh Choudhary, SushantaMahanty and **Ajay Kumar, "**A novel technique for the design and implementation of a 4x2 all optical encoder using micro-ring resonator switching mechanism,**"** 3rd International Conference on VLSI, Communication and Signal Processing (VCAS 2020) Organised by Department of ECE, Motilal Nehru National Institute of Technology Allahabad, Prayagraj, 9th – 11th October 2020, Springer, LNEE, DOI Pending.

[15]. SushantaMahanty, Rakesh Choudhary and **Ajay Kumar, "**Design of micro-ring resonator based all-optical Half Adder using 2 to 4-line Decoder circuit,**"** 3rd International Conference on VLSI, Communication and Signal Processing (VCAS 2020) Organised by Department of ECE, Motilal Nehru National Institute of Technology Allahabad, Prayagraj, 9th – 11th October 2020, Springer, LNEE, DOI Pending.

INTERNATIONAL CONFERENCES :

[1]. Santosh Kumar, **Ajay Kumar** and Sanjeev Kumar Raghuwanhsi "Analysis of effect of single and multiple micro-ring resonators as an optical filter using the Mason's gain formula," *Proc. SPIE 9130, Micro-Optics 2014*, SPIE Photonics Europe 2014, Brussels, Belgium, PP. 913007 (May 2, 2014); DOI: 10.1117/12.2058390.

[2]. Santosh Kumar, **Ajay Kumar** and Sanjeev Kumar Raghuwanshi, "Implementation of an optical AND gate using Mach-Zehnder interferometers," *Proc. SPIE 9131, Optical Modelling and Design III*, SPIE Photonics Europe 2014, Brussels, Belgium, PP. 913120 (May 1, 2014); DOI: 10.1117/12.2052655.

[3]. Santosh Kumar, S. K. Raghuwanshi, **Ajay Kumar**, "1 × 8 signal router using cascading the mach-zehnder interferometers" *6th IEEE/International Conference on AdvancedInfocomm Technology* (IEEE/ICAIT-2013),Hsinchu, Taiwan, July 2013, *IEEE Xplore,* Digital Object Identifier: 10.1109/ICAIT.2013.6621541, PP. 161-162.

[4]. **Ajay Kumar**, S. K. Raghuwanshi, Santosh Kumar, "Analysis of tunable comb filter using Mach-Zehnder Interferometer," *6th IEEE/International Conference on AdvancedInfocommTechnology(IEEE/ICAIT-2013)*,Hsinchu,Taiwan, July 6-9, 2013, *IEEE Xplore,* Digital Object Identifier: 10.1109/ICAIT.2013.6621557, PP. 179-181.

[5]. S. K. Raghuwanshi, **Ajay Kumar**, and Santosh Kumar, "A method of high repetition rate femtosecond optical pulse generation by using bi-stable optical micro-ring resonators," *Progress In Electromagnetics Research Symposium (PIERS 2012),* Moscow, Russia, August 19-23, 2012, PP. 909-912.

[6]. Santosh Kumar, **Ajay Kumar**, and S. K. Raghuwanshi, "Application of Photonic crystal Fiber Sagnac loop in DWDM as a Flat top Comb-Filter," *Frontiers in Optics 2014, OSA* Technical Digest (online) (Optical Society of America, 2014), paper JW3A.20, Arizona, USA, 19-23 October 2014. **https://doi.org/10.1364/FIO.2014.JW3A.20**

BOOK CHAPTERS

1. B. Behera, N. Kumar, M. Ranjan, **A. Kumar**, "COVID-19 DETECTION USING ADVANCED CNN & X-RAYS" in Book titled "Emerging Technologies during the Era of COVID-19 Pandemic". to be published in Springer Nature.

INVITED EXPERT LECTURES (External)

Sl. No	Name of the Expert	Topic/Title
1.	Dr. Ajay Kumar	RECENT ADVANCES IN MATERIALS FOR SENSOR DESIGN AND MICRO-WAVE APPLICATION (RMSM-2019)
2.	Dr. Ajay Kumar	SHORT TRAINING PROGRAMME ON INTERNET OF THINGS
3.	Dr. Ajay Kumar	Design and Analysis of Optical Digital Computation Techniques using Some Optical Switching Units, TEQIP III sponsored 5 days online short term training program on "organized by Department of Electronics Engineering, SVNIT-Surat and MMMUT Gorakhpur from 19th -23rd Oct, 2020.

MEMBERSHIP IN TECHNICAL SOCIETIES

- Graduate member of the Institute of Electrical and Electronics Engineers (IEEE).
- Member of Society of Photo-Optical Instrumentation Engineers (SPIE).
- Member of Optical Society of America (OSA).

ACHIEVEMENTS

- GATE 2010 Qualified (EIE) with 97.69 percentile.
- Summer Course in VLSI from National institute of science and technology, Berhampur, Orissa
- Summer trainning on optical fiber fabrication in CGCRI Kolkata.
- Organized an "Optics Demonstration' sponsored by OSA on 12 Feb., 2014 at Indian School of Learning, Dhanbad.

SKILL SET

Tools: MATLAB, OptiBPM, OptiFiber, OptiSPICE, OptiGrating C-Programming, C++, VLSI (Tanner Tool), VHDL, LabView, SCADA

WORKSHOP

- Attended Workshop on "Application of Simulators in Photonics, Electronics and Communication Technology," Organised by the University of Calcutta, India, at Institute of Radio Physics and Electronics, Kolkata on 11th to 15th March 2013.

- Attended "Workshop on Recent Advances in Photonics (WRAP 2013)," Organised by the Physics Department at Indian Institute of Technology Delhi on 17th to 18th December 2013.

PERSONAL INFORMATION

Name:	Ajay Kumar
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REFERENCES

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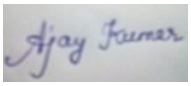
DECLARATION

I hereby declare that the above particulars are true to the best of my knowledge and belief.



Date:24/11/2020
Place:JAMSHEDPUR **AJAY KUMAR**