Curriculum Vitae

	**Full Name**	Madhu Sudan Kayastha, Ph. D
	Date of Birth	1st Magh, 2036 B.S (15th Jan., 1980)
	Permanent Address	Ratnanagar 13, Jayamangla Chitawan, Nepal
	Temporary Address	Imadol, Lalitpur, Nepal
Contact No.	(+977) - 56562579 (Chitwan home) (+977) - 9823610720	
Email Address	madhu80sudan@gmail.com, madhusudan@pu.edu.np	

ACADEMIC QUALIFICATIONS			
Enrolled On	**Graduate On**	**Degree**	**Department/College/Address**
April, 2008	March, 2011	Doctor of Philosophy (Ph. D)	Department of Electrical and Electronic Engineering, Chubu University, Matsumoto-Cho 1200, Kasugai, Aichi, Japan
April, 2006	March, 2008	Master of Engineering (M.E)	Department of Electrical and Electronic Engineering, Chubu University, Matsumoto-Cho 1200, Kasugai, Aichi, Japan
April, 2000	March, 2004	Bachelor of Engineering (B.E)	Department of Electronics and Communication Engineering, Pokhara Engineering College, Phirke-8, Pokhara, Kaski, Nepal (Affiliated to Pokhara University)
September, 1996	August, 1999	Diploma in Engineering (I.E)	Department of Automobile Engineering, Thapathali Campus, Thapathali, Nepal (Affiliated to Tribhuban University)
-	June, 1996	School Leaving Certificate (SLC)	Jana Jagriti Ma Vi, Pithiwa, Chitawan, Nepal

PREVIOUS EXPERIENCES		
Duration	**Position/Place**	**Responsibilities**
21st April, 2019 ~ 13th April, 2019	*Associate Professor* Faculty of Science and Technology School of Engineering, Pokhara University, Pokhara Metropolitan - 30, Kaski, Nepal	• Teaching and learning activities Compliance with University curriculum • Participate in different committees as assigned by Director/Dean/Program coordinator and provide necessary support. • Participate in teacher's meetings organized by Director/Dean/Program coordinator and provide necessary input. • Research and development related works.
15th December, 2016 ~ 21st April, 2019	*Associate Professor, Principal* Kathford International College of Engineering and Management, Balkumari, Lalitpur, Nepal. (Affiliated to Tribhuban University)	• Program implementation and monitoring • Operation management • Management and coordination • Planning, reporting and documentation. • External coordination and networking • Support academic advisor and academic support advisor for implementation and monitoring of academic goal

15th December, 2016 ~ till date	*Senior Lecturer, Principal* Kathford International College of Engineering and Management, Balkumari, Lalitpur, Nepal. (Affiliated to Tribhuban University)	• Program implementation and monitoring • Operation management • Management and coordination • Planning, reporting and documentation. • External coordination and networking • Support academic advisor and academic support advisor for implementation and monitoring of academic goal
1st July, 2014 ~ 14th December, 2016	*Senior Lecturer, Head of Department* Department of Computer and Electronics Engineering Kathford International College of Engineering and Management, Balkumari, Lalitpur, Nepal. (Affiliated to Tribhuban University)	• Semester planning and implementation • Teaching and learning • Academic administration
April, 2013 ~ March, 2014	*Researcher* Department of Electrical and Electronic Engineering, Chubu University, Matsumoto-Cho 1200, Kasugai, Aichi, Japan	• Fabrication and characterization of high quality graphene film by MW-SWP-CVD and thermal CVD using different carbon source such as camphor, methane • Fabrication and characterization of SLM using high-purity GaAs epilayer by Liquid phase epitaxy (LPE) method. • Support professor to conduct research works • Co-supervise graduate/undergraduate students to conduct research work and their final project • Prepare and present output of research works to all laboratory members. • Laboratory management as requested by supervisor
April, 2011 ~ March, 2013	*Postdoctoral Researcher* Department of Electrical and Electronic Engineering, Chubu University, Matsumoto-Cho 1200, Kasugai, Aichi, Japan	• Fabrication and characterization of SLM using high-purity GaAs epilayer by LPE method. • Fabrication and characterization of amorphous carbon and graphene for photovoltaic device by MW-SWP-CVD. • Support professor to conduct research works • Co-supervise graduate/undergraduate student to conduct research work and their final project • Proposal /report writing and report to team leader • Laboratory management as requested by supervisor
Apr., 2008 ~Mar., 2011	*Research Assistant* Department of Electrical and Electronic Engineering, Chubu University, Matsumoto-Cho 1200, Kasugai,	• Fabrication and characterization of SLM using high-purity GaAs epilayer LPE method • Support professor to conduct research works

	Aichi, Japan	• Co-supervise graduate/undergraduate students to conduct research work and their final project • Clean room management and support supervisor for preparing project proposal
Apr., 2006 ～Mar., 2008	*Teaching Assistant* Department of Electrical and Electronic Engineering, Chubu University, Matsumoto-Cho 1200, Kasugai, Aichi, Japan	• Teach and guide undergraduate students to fabricate and characterize of light emitting diodes using LPE method. • Assist third and fourth undergraduate students to conduct their laboratory works and final reports

AWARDS/SCHOLARSHIPS

- Prestigious Monbukagakusho fellowship from Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan : 2008 - 2011 A.D
- Nepal Bidya Bhusan Padak "Ka" conferred by President of Nepal Dr. Ram Baran Yadav on the auspicious occasion of Education Day-2071

PUBLICATION/CONFERENCE

A. Peer-reviewed journals

1. **Madhu Sudan Kayastha**, Koichi Wakita, and Kiyohide Baba "*Thermal Crosstalk in Integrated DFB Laser-EA Modulators*", The Institute of Electrical Engineers of Japan (IEEJ) Trans. on Electronics, Information and systems, December 2007, Vol. 127, No.12, pp. 1967-1972.
2. **Madhu Sudan Kayastha**, Ikuo Matsunami, Durga Prasad Sapkota, Makoto Takahashi, and Koichi Wakita "*Ultrahigh Purity Undoped GaAs Epitaxial Layers Prepared by Liquid Phase Epitaxy*", Japanese Journal of Applied Physics Vol. 48, No. 12, 2009, 121102.
3. **Madhu Sudan Kayastha**, Makoto Takahashi, and Koichi Wakita "*High-Extinction Ratio and Low-Driving-Voltage Spatial Light Modulator by Use of Ultrahigh-Purity GaAs*", Japanese Journal of Applied Physics Vol. 49, No. 10, 2010, 102201.
4. Durga Prasad Sapkota, **Madhu Sudan Kayastha**, Koichi Wakita "*The Temperature Dependence of Threshold Current and Efficiency of AlGaInAs and InGaAsP Lasers Related to Intervalence Band Absorption Loss*", The Institute of Electrical Engineers of Japan (IEEJ) Trans. on Electronics, Information and systems, February 2011, Vol. 131, No.2, pp. 290 - 295.
5. Golap Kalita, **Madhu Sudan Kayastha**, Hideo Uchida, Koichi Wakita, Masayoshi Umeno "*Direct Growth of Nanographene Film by Surface Wave Plasma Chemical Vapor Deposition and Application for Photovoltaic Device*", Royal Society of Chemistry Advance 2012, Vol. 2, pp. 3225-3230. DOI: 10.1039/C2RA01024K
6. Durga Prasad Sapkota, **Madhu Sudan Kayastha**, Koichi Wakita "*Analysis of Linewidth enhancement factor for Compressively Strained AlGaInAs and InGaAsP Quantum Well Lasers*", Optical and Quantum Electronics, 2013, Vol. 45, Issue 1, pp 35-43, DOI: 10.1007/s11082-012-9600-1
7. **Madhu Sudan Kayastha**, Durga Prasad Sapkota, Makoto Takahashi, Koichi Wakita "*Effect of Electric Field on Exciton in High Purity GaAs Epilayer Measured at Room Temperature*", IET Electronics Letter, 2013, Vol. 49, No. 1, pp.57-59, DOI: 10.1049/el.2012.3728
8. Durga Prasad Sapkota, **Madhu Sudan Kayastha**, Koichi Wakita "*Effects of Temperature and Well Composition on Threshold Current Density for Compressive Strained-Layer AlxGayIn1-x-yAs Single Quantum Well Lasers*", IEEJ Transactions on Electronics, Information and Systems, Vol. 133 (2013) No. 6, pp. 1139-1144
9. Sudip Adhikari, **Madhu Sudan Kayastha**, Dilip Chandra Ghimire, Hare Ram Aryal, Sunil Adhikary, T. Takeuchi, K. Murakami, Y. Kawashimo, H. Uchida, K. Wakita, M. Umeno "*Improved Photovoltaic Properties of Heterojunction Carbon Based Solar Cell*", Journal of Surface Engineered Materials and Advanced Technology, 2013, 3, pp.178-183, DOI:10.4236/jsemat.2013.33024

10. Durga Prasad Sapkota, **Madhu Sudan Kayastha**, Koichi Wakita "*Electric Field Effects on Exciton in the Shape of Transmission Spectra in High-Purity GaAs at Room Temperature*", Optical and Quantum Electronics, 2014, Vol.47 , Issue 2 , pp 203-210, DOI: 10.1007/s11082-014-9901-7
11. Durga Prasad Sapkota, **Madhu Sudan Kayastha**, Makoto Takahashi, Koichi Wakita "*Proposed Model of Electric Field Effects in High-Purity GaAs at Room Temperature*", Optics and Photonics Journal, 2014, Vol. 4, pp.99-103. http://dx.doi.org/10.4236/opj.2014.45010
12. Durga Prasad Sapkota, **Madhu Sudan Kayastha**, Koichi Wakita "*Excitonic Refractive Index Change in High Purity GaAs Modulator at Room Temperature for Optical Fiber Communication Network* ", World Academy of Science, Engineering and Technology International Journal of Electrical, Computer, Electronics and Communication Engineering, 2015, Vol. 9, No. 2, pp. 205-208.

B. Paper published in international conference proceedings

1. **Madhu Sudan Kayastha**, Ikuo Matsunami, Durga Prasad Sapkota, Makoto Takahashi, and Koichi Wakita "*Low Driving Voltage Spatial Light Modulator Fabricated by Ultrahigh Purity GaAs*", The 22nd International Conference on Indium Phosphide and Related Materials, Takamatsu Symbol Tower, Kagawa, Japan, May 31-June 4, 2010, P.253, WeP23.
2. Durga Prasad Sapkota, **Madhu Sudan Kayastha**, Koichi Wakita "*Dependence of Threshold Current Density on Quantum Well Composition for Compressive Strained Al(x)Ga(y)In(1-x-y)As Lasers*", The 22nd International Conference on Indium Phosphide and Related Materials, Takamatsu Symbol Tower, Kagawa, Japan, May 31-June 4, 2010, P.261, WeP25.
3. Durga Prasad Sapkota, **Madhu Sudan Kayastha**, Koichi Wakita "*Strain Effects on Performance of AlGaInAs/InP Single Quantum Well Lasers*", The 23rd International Conference on Indium Phosphide and Related Materials, Berlin, Germany, 22nd May – 26th May, 2011, pp. 125-128
4. Sudip Adhikari, **Madhu Sudan Kayastha**, Dilip Chandra Ghimire, Hideo Uchida, Koichi Wakita, Masayoshi Umeno "Synthesis *of Graphene Like Carbon for Photovoltaic Device*", 第8回「次世代の太陽光発電システム」シンポジウム, pp.268-269, 30th June-1st July, 2011.
5. Durga Prasad Sapkota, **Madhu Sudan Kayastha**, Koichi Wakita "*Comparision of Linewidth Enhancement Factor for Compressively Strained AlGaInAs and InGaAsP Quantum Well Laser*", Proc. SPIE 8255, 825513 (2012); http://link.aip.org/link/doi/10.1117/12.909851

C. Paper presented in international conference

1. **Madhu Sudan Kayastha**, Ikuo Matsunami, Durga Prasad Sapkota, Makoto Takahashi, and Koichi Wakita "*Ultrahigh Purity GaAs Grown by Liquid Phase Epitaxy and Its Characterization*", The 17th American Conference on Crystal Growth and Epitaxy in conjunction with the 14th US Biennial Workshop on Organometallic Vapor Phase Epitaxy and the 6th International Workshop on Modeling in Crystal Growth, Lake Geneva, Wisconsin, August 9-14, 2009.
2. **Madhu Sudan Kayastha**, Ikuo Matsunami, Durga Prasad Sapkota, Makoto Takahashi, and Koichi Wakita "*Low Driving Voltage Spatial Light Modulator Fabricated by Ultrahigh Purity GaAs*", The 22nd International Conference on Indium Phosphide and Related Materials, Takamatsu Symbol Tower, Kagawa, Japan, May 31-June 4, 2010.
3. Durga Prasad Sapkota, **Madhu Sudan Kayastha**, Koichi Wakita "*Dependence of Threshold Current Density on Quantum Well Composition for Compressive Strained Al(x)Ga(y)In(1-x-y)As Lasers*", The 22nd International Conference on Indium Phosphide and Related Materials, Takamatsu Symbol Tower, Kagawa, Japan, May 31-June 4, 2010.
4. Sudip Adhikari, Hare Ram Aryal, Dilip Chandra Ghimire, **Madhu Sudan Kayastha**, Hideo Uchida, Koichi Wakita, and Masayoshi Umeno "*Silicon-incorporated P-type Amorphous Carbon Thin Films for Photovoltaic Devices*", 19th International Photovolatic Science and Engineering Conference and Exibition, International Convention Center Jeju, Korea, November 9-13, 2009.
5. Hare Ram Aryal, Sudip Adhikari, Dilip Chandra Ghimire, Golap Kalita, **Madhu Sudan Kayastha**, Hideo Uchida, Koichi Wakita, Hideo Sugai, and Masayoshi Umeno "*Study of Carrier Mobility, Photoconductivity and Photovolatic Characteristics of Carbon Thin Films*", 19th International Photovoltaic Science and Engineering Conference and Exhibition, International Convention Center Jeju, Korea, November 9-13, 2009.
6. Durga Prasad Sapkota, **Madhu Sudan Kayastha**, Koichi Wakita "*Strain Effects on Performance*

of AlGaInAs/InP Single Quantum Well Lasers", The 23rd International Conference on Indium Phosphide and Related Materials, Berlin, Germany, 22nd May - 26th May, 2011.

7. Sudip Adhikari, **Madhu Sudan Kayastha**, Dilip Chandra Ghimire, Hideo Uchida, Koichi Wakita, and Masayoshi Umeno "*Photovoltalic Characteristics Graphene Like Carbon Thin Films Deposited by Microwave Surface Wave Plasma CVD*", 21st International Photovoltaic Science and Engineering Conference, Fukuoka Sea Hawk, Fukuoka, November 28 - December 2, 2011.
8. Durga Prasad Sapkota, **Madhu Sudan Kayastha**, Koichi Wakita "*Comparision of Linewidth Enhancement Factor for Compressively Strained AlGaInAs and InGaAsP Quantum Well Laser*", SPIE Photonics West 2012, The Moscone Center, San Francisco, California, USA, Paper 8255-39, January 21 - 26, 2012
9. Sudip Adhikari, **Madhu Sudan Kayastha**, Dilip Chandra Ghimire, T. Takeuchi, K. Murakami, Y. Kawashimo, Hideo Uchida, Koichi Wakita, and Masayoshi Umeno "*Heterojunction Solar cell*", 3rd International Symposium on Advanced Plasma Science and its Application for Nitrides and Nanomaterials (ISPlasma2012), Chubu University, Aichi, Japan, P. 236, March 4-8, 2012.
10. **Madhu Sudan Kayastha**, Durga Prasad Sapkota, Makoto Takahashi, and Koichi Wakita "*Room Temperature Excitonic Electroabsorption Effect for High-Speed and Low-Driving Voltage Spatial Light Modulator*", 2012 International Conference on Solid State Devices and Materials (SSDM 2012), Kyoto International Conference Center, Kyoto, PS-7-12, pp 244-245,Sept. 25-27, 2012.
11. Hare Ram Aryal, Sudip Adhikari, **Madhu Sudan Kayastha**, Hideo Uchida, Koichi Wakita and Masayoshi Umeno "*Camphor based low temperature high quality graphene using surface wave plasma CVD*", 11th APCPST (Asia Pacific Conference on Plasma Science and Technology) and 25th SPSM (Symposium on Plasma Science for Materials), Kyoto University ROHM Plaza, Kyoto, Japan, 2-P01, October 2-5, 2012.
12. Sudip Adhikari, Hare Ram Aryal, **Madhu Sudan Kayastha**, Hideo Uchida, Koichi Wakita and Masayoshi Umeno "*Synthesis of Graphene Films from Camphor*", 11th APCPST (Asia Pacific Conference on Plasma Science and Technology) and 25th SPSM (Symposium on Plasma Science for Materials), Kyoto University ROHM Plaza, Kyoto, Japan, 2-P02, October 2-5, 2012.
13. Sudip Adhikari, Hare Ram Aryal, **Madhu Sudan Kayastha**, Dilip Chandra Ghimire, Sunil Adhikary, Hideo Uchida, Koichi Wakita and Masayoshi Umeno "*Graphene like carbon films and its properties for photovoltaic solar cells*", 22nd International Photovoltaic Science and Engineering Conference (PVSEC-22), Hangzhou, China, 4-O-5, November 5 - 9, 2012
14. Durga Prasad Sapkota, **Madhu Sudan Kayastha**, Koichi Wakita "*Experimental and Theoretical Study of Excitonic Electroabsorption in High Purity GaAs at Room Temperature*", The Photonics Global Conference-2012 (PGC-2012), Singapore, P1-16 (c12a648), December 13-16 , 2012.
15. **Madhu Sudan Kayastha**, Hare Ram Aryal,Sudip Adhikari, Hideo Uchida, Koichi Wakita, Masayoshi Umeno "*Synthesis of graphene using camphor by microwave surface wave plasma chemical vapor deposition technique*", The 5th International Conference on Recent Progress in Graphene Research (RPGA2013), Tokyo, Japan, 10p-P1-28, Sep. 9, 2013 - Sep. 13, 2013
16. Hare Ram Aryal, **Madhu Sudan Kayastha**, Saburo Uchida, Dilip Chandra Ghimire, Sudip Adhikari, Hideo Uchida, Koichi Wakita, Masayoshi Umeno "*Plasma CVD-grown graphene domains on glass and metals using camphor precursor*", The 5th International Conference on Recent Progress in Graphene Research (RPGA2013), Tokyo, Japan, 10p-P1-29, Sep. 9, 2013 - Sep. 13, 2013
17. **Madhu Sudan Kayastha** "*Synthesis of High Quality Graphene Film by Microwave Surface Wave Plasma Chemical Vapor Deposition*", International Conference on Plasma Science and Application (ICPSA 2014), Kathmandu University, Dhulikhel, Nepal, Sep. 22-24, 2014.
18. Durga Prasad Sapkota, **Madhu Sudan Kayastha**, Koichi Wakita "*Excitonic Refractive Index Change in High Purity GaAs Modulator at Room Temperature for Optical Fiber Communication Network*", International Conference on Communication Networks and Application, Dubai, UAE, Feb 26 -27, 2015

D. Paper presented in national conference

1. **Madhu Sudan Kayastha**, Koichi Wakita, and Kiyohide Baba "*Thermal Crosstalk in Integrated DFB Laser-EA Modulators*", The 68th Autumn Meeting, 2007 of the Japan Society of Applied Physics and Related Societies, Hokkaido Institute of Technology, September 4-8, 2007, P.1010, 7a-R-5.

2. **Madhu Sudan Kayastha**, Durga Prasad Sapkota, Ikuo Matsunami, Toshimasa Amano, Makoto Takahashi, and Koichi Wakita, "*Fabrication of Ultrahigh Purity GaAs Sub-Millimeter Detector Grown by Liquid Phase Epitaxy*", The 55th Spring meeting, 2008 of the Japan Society of Applied Physics and Related Societies, Nihon University, Funabashi-Shi, March 27-30, 2008, P.1199, 28a-ZQ-1.
3. **Madhu Sudan Kayastha**, Durga Prasad Sapkota, Ikuo Matsunami, Toshimasa Amano, Makoto Takahashi, and Koichi Wakita "*Photoluminescence Analysis of None-Doped GaAs-Epilayer Grown by LPE*", The 69th Autumn Meeting, 2008 of the Japan Society of Applied Physics and Related Societies, Chubu University, Kasugai-Shi, September 2-5, 2008, P.1017, 2a-P1-20.
4. Ikuo Matsunami, **Madhu Sudan Kayastha**, and Koichi Wakita "*Fabrication of Ultrahigh Purity GaAs Sub-millimeter Detector Grown by Liquid Phase Epitaxy*", The 69th Autumn Meeting, 2008 of the Japan Society of Applied Physics, Chubu University, Kasugai-Shi September 2-5, 2008, P.1017, 2a-P1-19.
5. **Madhu Sudan Kayastha**, Durga Prasad Sapkota, Ikuo Matsunami, Toshimasa Amano, Makoto Takahashi, and Koichi Wakita "*Measurement of Voltage Dependent Absorbed Photocurrent in None-Doped GaAs Epilayers*", The 56th Spring meeting, 2009 of the Japan Society of Applied Physics and Related Societies, Tsukuba University, Tsukuba-Shi, 30th March – 2nd April, 2009, P.1191, 31a-A-9.
6. Ikuo Matsunami, **Madhu Sudan Kayastha**, Makoto Takahashi and Koichi Wakita "*Fabrication of Ultrahigh Purity GaAs Layer by Liquid Phase Epitaxy*", The 56th Spring meeting, 2009 of the Japan Society of Applied Physics and Related Societies, Tsukuba University, Tsukuba-Shi, 30th March – 2nd April, 2009, P. 1206, 2a-G-12.
7. Durga Prasad Sapkota, **Madhu Sudan Kayastha**, and Koichi Wakita "*Study of Intervalence Band Absorption Loss of InP Based Double Hetrostucture Laser Diodes*", The 56th Spring meeting, 2009 of the Japan Society of Applied Physics and Related Societies, Tsukuba University, Tsukuba-Shi, 30th March - 2nd April, 2009, P.1031, 2p-H-9.
8. Ikuo Matsunami, **Madhu Sudan Kayastha**, Toshimasa Amano, Makoto Takahashi and Koichi Wakita, "*Fabrication of Spatial Light Modulator with Low Drive Voltage Using Ultrahigh Purity GaAs*", The 70th Autumn Meeting, 2009 of the Japan Society of Applied Physics and Related Societies, Toyoyama University, Toyoyama-Shi, September 8-11, 2009, P.1100, 2a-G-12.
9. **Durga Prasad Sapkota**, Madhu Sudan Kayastha, and Koichi Wakita "*Theoretical Study of Threshold Current Density of AlGaInAs-InP DH Lasers*", The 70th Autumn Meeting, 2009 of the Japan Society of Applied Physics, Toyoyama University, Toyoyama-Shi, September 8-11, 2009, P. 1070, 10p-S-13.
10. **Durga Prasad Sapkota**, Madhu Sudan Kayastha, and Koichi Wakita "*Study of Threshold Current Density of InAlGaAs-InP SQW Laser Due to Strain Effec*tc, The 57th Spring meeting, 2010 of the Japan Society of Applied Physics and Related Societies, Tokai University, Kanagawa-Shi, March 17-20, 2010, P. 05-019, 19p-E-8.
11. **Madhu Sudan Kayastha**, Durga Prasad Sapkota, Ikuo Matsunami, Toshimasa Amano, Makoto Takahashi, and Koichi Wakita "*Correlations Between Photoluminescence and Compensation Ratio of High Purity GaAs*", The 57th Spring meeting, 2010 of the Japan Society of Applied Physics and Related Societies, Tokai University, Kanagawa-Shi, March 17-20, 2010, P. 05-010, 19a-E-10.
12. **Madhu Sudan Kayastha**, Durga Prasad Sapkota, Bu Shin, Makoto Takahashi, and Koichi Wakita "*Electric Field Effects on Exciton in High-Purity GaAs at Room Temperature*", The 59th Spring meeting, 2012 of the Japan Society of Applied Physics and Related Societies, Waseda University, Waseda Campus, Tokyo, March 15-18, 2012, 05-090, 17p-F4-20.
13. Bu Shin, **Madhu Sudan Kayastha**, Durga Prasad Sapkota, Makoto Takahashi, and Koichi Wakita "*Fabrication of High-Efficient Spatial Light Modulators by Use of Excitonic Electro-absorption*", The 59th Spring meeting, 2012 of the Japan Society of Applied Physics and Related Societies, Waseda University, Waseda Campus, Tokyo, March 15-18, 2012, 05-120, 18a-GP4-11.
14. **Madhu Sudan Kayastha**, Durga Prasad Sapkota, Bu Shin, Makoto Takahashi, and Koichi Wakita "*Strong Energy shift of Excitonic Absorption of High-Purity GaAs in Electric Field*", The 73rd Autumn meeting, 2012 of the Japan Society of Applied Physics and Related Societies, Ehime University / Matsuyama University, Japan, Sep 11-14, 2012, 13p-C5-6.
15. Durga Prasad Sapkota, **Madhu Sudan Kayastha**, Bu Shin, Makoto Takahashi, and Koichi Wakita "*Electric Field Effect on Electroabsorption with Exciton of High-Purity GaAs*", The 73rd Autumn

meeting, 2012 of the Japan Society of Applied Physics and Related Societies, Ehime University / Matsuyama University, Japan, Sep 11-14, 2012, 13p-C5-7.

16. **Madhu Sudan Kayastha**, Hare Ram Aryal, Sudip Adhikari, Hideo Uchida, Koichi Wakita, Masayoshi Umeno "*Synthesis of Graphene by Microwave Surface Wave Plasma Chemical Vapor Deposition*", The 73rd Autumn meeting, 2012 of the Japan Society of Applied Physics and Related Societies, Kyotanabe Campus, Doshisha University, Kyoto, Japan, Sep 16-20, 2013.
17. Hare Ram Aryal, **Madhu Sudan Kayastha**, Hideo Uchida, Koichi Wakita, Masayoshi Umeno "*Synthesis of Few Layers Graphene Domains on Copper Substrates by Surface Wave Assisted Microwave Plasma CVD*", The 73rd Autumn meeting, 2012 of the Japan Society of Applied Physics and Related Societies, Kyotanabe Campus, Doshisha University, Kyoto, Japan, Sep 16-20, 2013.
18. **Madhu Sudan Kayastha**, Hare Ram Aryal, Sudip Adhikari, Hideo Uchida, Koichi Wakita, Masayoshi Umeno "*Low defect graphene films on nickel and copper substrate at low temperature using camphor by MW-SWP-CVD*", The 61st Spring meeting, 2014 of the Japan Society of Applied Physics and Related Societies, Sagamihara Campus, Aoyama Gakuin University, Sagamihara Shi, Kanagawa, Mar 17-20, 2014.
19. Hare Ram Aryal, **Madhu Sudan Kayastha**, Hideo Uchida, Koichi Wakita, Masayoshi Umeno "*Comparing Characteristics of Graphene Films Grown by Surface Wave Assisted Microwave Plasma CVD using Camphor and Methane Precursors*", The 61st Spring meeting, 2014 of the Japan Society of Applied Physics and Related Societies, Sagamihara Campus, Aoyama Gakuin University, Sagamihara Shi, Kanagawa, Mar 17-20, 2014.
20. Sudip Adhikari, **Madhu Sudan Kayastha**, Saburo Uchida, Hideo Uchida, Koichi Wakita, Masayoshi Umeno "*High-quality graphene synthesis using the camphor source by the plasma CVD method*", The 61st Spring meeting, 2014 of the Japan Society of Applied Physics and Related Societies, Sagamihara Campus, Aoyama Gakuin University, Sagamihara Shi, Kanagawa, Mar 17-20, 2014

E. Paper presented in regional conference

1. **Madhu Sudan Kayastha** and Koichi Wakita "*Thermal Crosstalk in Integrated DFB Laser-EA Modulators*", Tokai-Section Joint Conf. of Eight Institutes of Electrical and Related Engineers, Gifu University, September 28-29, 2006, P.0-214.
2. Durga Prasad Sapkota, **Madhu Sudan Kayastha**, and Koichi Wakita "*A Comparative Study of Leakage Current in AlGaInAs-InP and InGaAsP Double Hetrostucture Optoelectronic Device*", Tokai-Section Joint Conf. on Electrical and Related Engineers, Aichi Ken University, September 18-19, 2008, P.0-342.
3. 松浪育生, **カヤスタ マドウ スダン**, 脇田　紘一 " 超高純度LPE成長GaAs 結晶の作製と評価 ", Joint Conf. on Electrical and Related Engineers, Aichi Ken University, September 18-19, 2008, P.0-342.
4. Ikuo Matsunami, **Madhu Sudan Kayastha** and Koichi Wakita "*Fabrication of Spatial Light Modulator with Low Drive Voltage Using Ultrahigh Purity GaAs*", Tokai-Section Joint Conf. on Electrical and Related Engineers, Aichi Institute of Technology, September 10-11, 2009, P.0-262.

OTHER EXPERIENCES/SKILLS

Hands on sophisticated instruments

Fabrication and processing: Liquid phase epitaxy (LPE) - [200-5A], Sputtering - [SRV3300], Spin coater - [Mikasa 1HDX], Vacuum evaporator – [ET-240A], Ion Sputter – [E-1030], Photolithography – [Mask alignment-20], Rapid thermal annealing [Infrared image furnace], Wire Bonder, Microwave-surface wave plasma CVD (MW-SWP-CVD), Thermal CVD

Characterization:

Hall effect measurement - [Bio Rad HL5500], Solar simulator, Four probe resistivity measurement, Photoluminescence measurement – [SPEX1702/04], Scanning electron microscopy (SEM) [JEM-5600], XPS (ESCA-3300KM), Raman spectroscopy (RENISHAW), Transmission electron microscopy (TEM), Optical microscope, Atomic Force Microscopy (AFM), X-ray reflection diffraction measurement (XRD)

Research and development

- Fabrication of high-purity GaAs epilayer by liquid phase epitaxy (LPE) method in clean room environment and its characterization.
- Fabrication of spatial light modulator (SLM) using high-purity GaAs epilayer and its optical and electrical characterization.
- Fabrication of amorphous carbon and graphene for photovoltaic device by MW-SWP-CVD and its optical and electrical characterization.
- Fabrication of graphene by microwave surface wave plasma chemical vapor deposition (MW-SWP-CVD) using different carbon source such as camphor, methane.
- Fabrication of graphene by thermal-CVD using solid carbon source such as camphor and adamantane.
- Ability to transfer graphene films on arbitrary substrate such as quartz, glass, SiO_2 etc.
- Characterization of graphene by Raman spectroscopy, TEM, SEM, transmission measurement, and four probe resistivity measurements.
- General maintenance of equipment and management of laboratory.
- Excellent interpersonal and communication skills.

PREVIOUS EXPERIENCES

1. Indra Prasad Acharya, Ph.D
   Program Coordinator, MSc in Geotechnical Engineering
   Department of Civil Engineering
   Institute of Engineering, Pulchowk Campus
   Pulchowk, Nepal
   indrapd@ioe.edu.np
2. Assoc. Prof. Mahesh Chandra Luintel
   Department of Mechanical Engineering
   Institute of Engineering, Pulchowk Campus
   Pulchowk, Nepal
   mcluintel@ioe.edu.np
3. Prof. Shyam Bahadur Katwal
   Padmakanya Multiple Campus, Bag Bazzar, Kathmandu, Nepal
   Former Dean of faculty of Management, Purbanchal University
   shyam.katuwal@gmail.com