

Curriculum Vitae

Name: Prof. Bishnu Prasad Gautam, Ph.D.

Correspondence

Wakkanai-Shi, Midori 5 Chome 32-16

Hokkaido, Japan 097-0004

E-mail: gautam@wakhok.ac.jp URL: <http://www.wakhok.ac.jp/~gautam/>

Research Interest

- Disaster Ready Networks, Smart Community
- IoT and Sensor Networks
- Network Architecture, Wireless Networks, Cloud Computing , Web Service and Web Technology
- Database, Data mining and Clustering
- Distributed Computing Architecture

Academic Qualification

- **Shinshu University, Wakasato, Nagano, Japan (2012~2016)**

Ph.D. (Engineering), Supervisor, Prof. Katsumi Wasaki,

Title of Dissertation: Disaster Ready Networks: With a Novel Management and Monitoring Approach

- **Shinshu University, Wakasato, Nagano, Japan (2006-2009)**

Master of Engineering (Information/Computer)

Supervisor: Prof. Katsumi Wasaki, Master Thesis Evaluation Committee Members: Prof. Katsumi Wasaki, Prof. Shidama Yasunari, and Assoc. Prof Kawamoto Pauline Naomi.

Thesis: An Architectural Model for Time Based Resource Utilization and Optimized Resource Allocation in a Jini Based Service Cloud.

- **Wakkanai Hokusei Gakuen University, Wakkanai, Hokkaido, Japan (2005-2006)**

Post Bachelor Research Program (1 Year Research Program in Information and Media Science for Students having Bachelor Degree in Information Related Areas). Research in Grid Computing, Supervisors: Porf. Maruyama Fujio and Assoc. Prof. Andoh Tomoharu,

Thesis: An Architectural Model for Legacy Resource Management in a Jini Based Service Cloud over Secured Environment

- **Wakkanai Hokusei Gakuen University, Wakkanai, Hokkaido, Japan (2003-2005)**

Bachelor Degree in Information and Media Science. Supervisors: Porf.

Maruyama Fujio and Assoc. Prof. Andoh Tomoharu,

Thesis: JINI Based Service Grid: Remote Service Invocation Model for Time Based Resource Allocation.

(Joined Wakkanai Hokusei University as a transferred student in third year from University of Colorado, Denver, USA)

- **Tribhuvan University, Institute of Forestry Pokhara Campus, Pokhara, Nepal (1988-1991)**

Intermediate Degree: Intermediate of Science (ISc) in Forestry from Institute of Forestry, Tribhuvan University, Pokhara, Nepal

Professional License (Wireless Spectrum)

- Terrestrial Special Wireless Radio Engineering License Level 3, Hokkaido Bureau of Telecommunication, 2016

Awards and Recognitions

- **Best Presentation Award**, 62nd Intelligent Transportation Systems and Smart Community Research Workshop, Paper Title.: Portable Tensai Gothalo: Leveraging Network Availability, Survivability, and Manageability Through Movable Redundant Device, Wakkanai, Japan, 2015
- **Incentive Award**, 62nd Intelligent Transportation Systems and Smart Community Research Workshop, Paper Title: Fogging Jyaguchi Services in Tensai Gothalo, Wakkanai, Japan, 2015
- **Certificate of Merit** for The 2010 IAENG International Conference on Internet Computing and Web Services, Hongkong, Paper No.: ICICWS_19, Paper Title.: A Model for the Development of Universal Browser for Proper Utilization of Computer Resources Available in Service Cloud over Secured Environment
- **President Award** for excellent in graduation research, 2004, Wakkanai Hokusei Gakuen University, Japan
- **Third Place** in “Go and Japanese Chess Tournament”, Society for Hokkaido District Union, Wakkanai, Hokkaido, Japan, 1999
- **Second Place** in Japanese Speech Contest, Education Committee of Yokohama City, Yokohama, Japan, 1996

Funded Research Projects

- Team Member, Joint Research with Prof. Asami Tomoyasu and Assit. Prof. Fujisaki Tatsuya of Wakkanai Hokusei Gakuen University, Project Title: Development of smart tourism communication system in natural protected areas, Funded by MEXT, Japan, Funded Amount: 2,700,000 JPY
- Team Member, Joint Research with Assoc. Prof. Kazuhiko Sato, Muroran Institute of Technology, Project Title: Wireless network implementation study in Himalaya region (Funded by Muroran Institute of Technology, Muroran, Hokkaido, Japan)
- Project Leader, Development of Wakkanai Hokusei Gakuen Academic Affairs management system: Campus-ESIA (Student Education and Information Management System of WAKHOK) Operation Started from 2013 (Funded by Wakkanai school corporation Hokusei Gakuen University)
- Project Leader, "Survey of smart community of Wakkanai City, Funded by Wakkanai City Government, 2012, Funding amount: 2,047,500 JPY

- Team Member, Project Title: Research of wireless communication infrastructure in Wakkanai version smart community (Joint Research with Hokuden.) Secured Amount: 682,500 JPY
- Project Leader, Development of Wakkanai scholarship management system (Loan Scholarship Management System of Wakkanai City Government), Operation Started from 2013 Funded Amount: 2,100,000 JPY,

Teaching Experience

- **Full Professor (April 2017 Onwards)**
Wakkanai Hokusei Gakuen University, Wakkanai, Hokkaido, Japan
Subject: Advanced Networks Management, Theory of Database, Data Communication and Networks, Theory of Network Management, Applied Web Programming II
- **Assoc. Professor (April 2014- March 2017)**
Wakkanai Hokusei Gakuen University, Wakkanai, Hokkaido, Japan
Subject: Advanced Networks Monitoring and Management, Theory of Database, Data Communication and Networks, Theory of Network Management, Web Programming II, Wakkanai Hokusei Gakuen University, Hokkaido, Japan
- **Assist. Professor (April 2010-March 2014)**
Wakkanai Hokusei Gakuen University, Wakkanai, Hokkaido, Japan
Subject: Advanced Networks Monitoring and Management, Theory of Database, Data Communication and Networks, Theory of Network Management, Web Programming II, Wakkanai Hokusei Gakuen University, Hokkaido, Japan
- **Part Time Lecturer (April 2009-)**
Wakkanai Hokusei Gakuen University, Wakkanai, Hokkaido, Japan
Subject: Advanced Networks Monitoring and Management, Wakkanai Hokusei Gakuen University, Hokkaido, Japan
- **Teaching Assistant (2003- 2005)**
Wakkanai Hokusei Gakuen University, Wakkanai, Hokkaido, Japan
Subject: Java Programming I and II, Unix Practical, Wakkanai Hokusei Gakuen University, Japan

Other Work Experience

- **Director (April 2008 –March 2010)**
Student Support Section, Wakkanai Hokusei Gakuen University
Wakkanai, Hokkaido, Japan
Major duties: Research Advising for Research Students, Academic Records Management and Teaching
- **Director (April 2006-April 2008)**
International Department, Wakkanai Hokusei Gakuen University
Major Duties: Research Advising for Research Students, Collaboration and Research Affiliation between Wakkanai Hokusei Gakuen University and other Universities in Nepal, Bangladesh, China and Russia.
- **Vice Chairman (July 2007 -)**
Wakhan Information Technology and Language Research center, Kathmandu, Nepal.

Major Duties: Project Management And Leadership for Web Applications Development in The Company.

- **Civil Engineering Technician (1996-2000)**

Hokutaku Construction and Engineering Pvt. Ltd., Wakkanai, Hokkaido, Japan

Major Duties: Data collection required for construction of engineering projects, member of project Implementation: Highway Bridge, Marine Dam Construction, and Several Type of Building Constructions.

Publications

1. B. P. Gautam, K. H. Asami, A. Batajoo, T. Fujisaki " Regional Revival through IoT Enabled Smart Tourism Process Framework (STPF) : A Proposal" **SCIS&ISIS2016** Joint 8th International Conference on Soft Computing and Intelligent Systems and 17th International Symposium on Advanced Intelligent Systems, 2016, pp. 743-748. 【Peer-Reviewed】
2. B. P. Gautam, K. Wasaki and N. Sharma, "A Novel Approach of Fault Management and Restoration of Network Services in IoT Cluster to Ensure Disaster Readiness," *2016 International Conference on Networking and Network Applications (NaNA)*, Hakodate, 2016, pp. 423-428. doi: 10.1109/NaNA.2016.46 【Peer-Reviewed】
3. Bishnu Prasad Gautam, Narayan Sharma, Krishna Prasad Bhattarai "Dynamic Power Management and Monitoring Scheme for DRN-HA Cluster". *International Journal of Computer Trends and Technology (IJCTT)* V38(2):92-98, ISSN:2231-2803. www.ijcttjournal.org. Published by Seventh Sense Research Group, Aug. 2016. 【Peer-Reviewed】
4. Bishnu Prasad Gautam, Katsumi Wasaki, Amit Batajoo, Suresh Shrestha, Sato Kazuhiko: Multi-Master Replication of Enhanced Learning Assistant System in IoT Cluster, 2016 IEEE 30th International Conference on Advanced Information Networking and Applications (AINA), Crans-Montana, Switzerland, IEEE, pp. 1006-1012, doi: 10.1109/AINA.2016.110, March-2016 【Peer-Reviewed】
5. Bishnu Prasad Gautam, Katsumi Wasaki, and Narayan Sharma, "Portable Tensai Gothalo : Leveraging Network Availability, Survivability, and Manageability Through Movable Redundant Device (ITS Study Group traffic sensing, communication, information processing, general)," *The Institute of Electrical Engineers Society article. ITS*, vol. 2015, no. 23, pp. 39–44, Aug. 2015.
6. Bishnu Prasad Gautam, Narayan Sharma, and Katsumi Wasaki, "Design and Deployment of Obstacle Avoidance Functionalities in Tensai Gothalo ITS Study Group traffic sensing, communication, information processing, general)," *The Institute of Electrical Engineers Society article. ITS*, vol. 2015, no. 23, pp. 51–55, Aug. 2015.
7. Bishnu Prasad Gautam, Amit Batajoo, and Katsumi Wasaki, "Fogging Jyaguchi Services in Tensai Gothalo ITS Study Group traffic sensing, communication, information processing, general)," *The Institute of Electrical Engineers Society article. ITS*, vol. 2015, no. 23, pp. 45–50, Aug. 2015.
8. Suresh Shrestha, Pramesh Shrestha, Bishnu Prasad Gautam, and Kazuhiko Sato, "A Proposal for using of Synchronous Database Replication System on Unstable Networks (ITS Research Group traffic sensing, communication, information processing, general)," *Inst. Electr. Eng. Soc. Artic. ITS*, vol. 2015, no. 23, pp. 85–90, Aug. 2015.
9. Gautam B.P., Wasaki K.: Deployment of Wi-Fi Network as an Emergency Survival Communication, Network in Wakkanai, Hokkaido, *IEEJ Transactions On Electrical And Electronic Engineering*, IEEJ Trans Elec Electron Eng, 10: S60–S68. DOI:10.1002/tee.22165, October 2015 【Peer-Reviewed】
10. Suresh SHRESTHA, Bishnu Prasad GAUTAM, Hiroyasu ASAMI, Takahiro SAGA and Dambar PUN: Simulation, Emulation and Performance Analysis of Dhital-Kaski CWN Networks 『Wakkanai Hokusei Gakuen University Bulletin 2015』 , Vol. No. 15, pp 61-94, Mar. 2015.

11. Gautam B.P, Wasaki K., Sharma N.: Using a Solar Powered Robotic Vehicle to Monitor and Manage Unstable Networks ; International Journal of Future Computer and Communication, 3(6), 415-420, ISSN:2010-3751, DOI: 10.7763/IJFCC.2014.V3.339, Dec. 2014. **【Peer-Reviewed】**
12. Bishnu Prasad GAUTAM, Katsumi WASAKI, Amit BATAJOO : Encapsulation of Micro Engineering Tools in a Co-Operative Jyaguchi Computing Infrastructure ; ScieXplore: International Journal of Research in Science, 1(1), 34-41, DOI:10.15613/sijrs/2014/v1i1/53851, ISSN:2349-8919, June 2014.
13. Bishnu Prasad GAUTAM, Narayan SHARMA, Katsumi WASAKI : Tensai Gothalo: A Solar Powered Robotic Vehicle for Real Time Network Monitoring and Management Using Raspberry Pi ; ScieXplore: International Journal of Research in Science, 1(1), 42-50, DOI:10.15613/sijrs/2014/v1i1/53146, ISSN:2349-8919, June 2014.
14. Gautam B.P, Wasaki. K, Pun D. : Experimentation of Emergency Detour Route to Enhance Unstable Networks in Wakkanai, Hokkaido ; Information Processing Society of Japan, The 22nd Annual Workshop of IPSJ Special Interest Group on Distributed Processing System ,Shimane, Japan, IPSJ Symposium Series, ISSN 1882-0840, Vol.2014, No.5, page 279-286, December 8-10, 2014 **【Peer-Reviewed】**
15. Gautam B.P, Wasaki. K, Sharma, N. Using a Solar Powered Robotic Vehicle to Monitor and Manage Unstable Networks, International Journal of Future Computer and Communication vol. 3, no. 6, pp. 415-420, 2014. (Peer-Reviewed)
16. Gautam B.P, Wasaki. K, Using a Redundant Wi-Fi Network as an Emergency Detour Route to Proactively Reduce Disaster Risk in Wakkanai, Hokkaido
Proceedings of the 2014 International Conference on Information Science, Electronics and Electrical Engineering (ISEEE2014) , (A6-3):1-8 2014(Apr.) (Peer-Reviewed)
17. Gautam B.P, Shrestha S., Wasaki. K, Enhancing Network Reliability by Establishing Redundant Network of Wi-Fi as Disaster Readiness in Soya Regions, IPSJ SIG Technical Reports 2013-IOT-22(5), 1-6, July 2013 (Peer-Reviewed)
18. Shrestha, K.,Kudo Y. ,Gautam, B.P., Shrestha, D., Recommendation of a Cloud Service Item Based on Service Utilization Patterns in Jyaguchi, Knowledge and Systems Engineering, Proceedings of the Fifth International Conference KSE 2013, Springer, AISC 245, 121-133, 2013/10 (Peer-Reviewed)
19. Gautam B.P, Shrestha S. Safeguarding Regional Network from Potential Natural Disaster by Establishing Redundant Network of Wi-Fi, WAKHOK University Bulletin, (13), 43-51, March 2013
20. Gautam B.P, Shrestha D. Analysis of Routing Protocols for Smart Community Networks, WAKHOK University Bulletin, Vol. No. (13), 53-64, March 2013
21. Gautam, B.P., Wasaki, K. SOA-based Campus Administration Management System using Multi-layered Architecture : Campus-SIA IPSJ SIG Technical Reports, Multimedia Communication and Distributed Processing Workshop Papers, 2012 (4), 219-226 (Peer-Reviewed)
22. Paudel D., Sato K., Gautam B.P., Shrestha D, Design and Implementation of Partial Mesh Community Wireless Network in Himalayan Region”, 2012 Third Asian Himalayas International Conference on Internet, Kathmandu, 2012, pp. 1-6. doi: 10.1109/AHICI.2012.6408447 November, 2012 (Peer-Reviewed)
23. Gautam, B.P and Shrestha, S.K., Effective Campus Management through Web Enabled Campus-SIA (Student Information Application), Lecture Notes in Engineering and Computer Science, 2012;2195 (1)608-613, March 2012. (Peer-Reviewed)
24. Gautam B.P, Paudel D. R A Network Lab Experiment of Multi-Cloning of OS by Using Clonezilla, WAKHOK University Bulletin , Vol. No. 12, page 51-58, March, 2011
25. Gautam B.P, Shrestha S.K Deployment of Student Management Application (Campus SIA) in Wakkanai Hokusei Gakuen University, WAKHOK University Bulletin, Vol. No. 12, page 39-50, March, 2011
26. Gautam B.P, Paudel D. R., Shrestha Utilization of Jyaguchi Architecture for Development of Jini Based Service Cloud, WAKHOK University Bulletin, Vol. No. 11, page 07-22, March, 2011

27. Gautam B.P, Paudel D. R., Shrestha S.K, A Study And Site Survey In Himalayan Region For Proper Utilization Of Wireless Community Networks: An Assessment Of Community Wireless Implementation In Heterogeneous Topography, WAKHOK University Bulletin, Vol. No. 11, page 23-36, March, 2011
28. Gautam, B.P and Shrestha, D., A Model for the Development of Universal Browser for Proper Utilization of Computer Resources Available in Service Cloud over Secured Environment, Proceedings of The International MultiConference of Engineers and Computer Science (IMECS2010), IAENG, VI pp 638-643, March 2010. (Peer-Reviewed)
29. Gautam, B.P and Shrestha, D., Document Clustering through Non-Negative Matrix Factorization: A Case Study of Hadoop for Computational Time Reduction of Large Scale Documents, Proceedings of The International MultiConference of Engineers and Computer Science (IMECS2010), IAENG, VI pp 570-575, March 2010. (Peer-Reviewed)
30. Gautam, B.P and Shrestha, D., Enhancement of Network Operation through Capacity Planning, Management and Network Monitoring: A Case Study of Network Monitoring through Nagios, WAKHOK University Bulletin, vol. page 148-158, April 2010.
31. Gautam, B.P and Shrestha, D. An Assessment of Document Clustering Based on KNMF Algorithm Applying Hadoop, WAKHOK University Bulletin, vol. page 148-158, April 2010.
32. Gautam, B.P., An Architectural Model for Legacy Resource Management in a Jini Based Service Cloud Over Secured Environment, IPSJ SIG Technical Reports, Information Processing Society of Japan 2009-EIP-43, Page 55-62.
33. Andoh T, Harie H. and Gautam B.P. Educational Plan for Efficient Utilization of IT Equipment that Considers Global Environmental Impact" 2009, Sakhalin State University, Sakhalin, Russia (Russian Language Version), Page 36-38.

Research Achievements /Conferences and Presentations/Workshops

1. Bishnu Prasad Gautam, Katsumi Wasaki, Amit Batajoo, Suresh Shrestha, Sato Kazuhiko: Multi-Master Replication of Enhanced Learning Assistant System in IoT Cluster, IEEE AINA 2016 The 30th IEEE International Conference on Advanced Information Networking and Applications, March 24, 2016, Crans-Montana, Switzerland.
2. Gautam B.P, Wasaki. K, Pun D. : Experimentation of Emergency Detour Route to Enhance Unstable Networks in Wakkanai, Hokkaido ; Information Processing Society of Japan, The 22nd Annual Workshop of IPSJ Special Interest Group on Distributed Processing System ,Shimane, Japan, IPSJ Symposium Series, ISSN 1882-0840, Vol.2014, No.5, page 279-286, December 8-10, 2014
3. 22 August, 2014, Invited Lecture: Monitoring and Management of Unstable Networks in Extreme Climatic Regions and The Usage of Robotic Vehicle, Advanced Information Symposium at Rishiri Island, Hokkaido
4. 5th August, 2014, Monitoring and Management of Unstable Networks by Using Tensai Gothalo : How to Ensure Network Reliability, Redundancy and High Availability ? , Multi-Discipline Work Shop in ICT Technology and Environment, Wakkanai Hokusei Gakuen University, Hokkaido, Japan
5. 22nd June, 2013, Paper Presentation on The Role of ICT for Smart Community: Feasibility Study of Soya and Himalayan Region, Renewable Energy Workshop to Envision the Nature, Environment and the Industry of Hokkaido, Renewable Energy Study and Research Group Hokkaido NPO, Venue: Department of Agriculture Hall for Various Objective (W109), Hokkaido, Japan

6. March 14th, 2013, Wireless Networks and its Role in Achieving a Smart Community: A Study of Co-relation between Soya Regions of Hokkaido and the Himalaya Regions of Nepal, Hamamatsu Seminar, Faculty of Informatics, Hamamatsu Campus, Shizuoka University, Shizuoka, Japan
7. 5th Jan, 2013, ICT and Renewable Energy: The Foundation of Smart Community, Kathmandu Engineering College, Kathmandu, Nepal
8. 19th October, 2012 Paper Presentation on SOA-based Campus Administration Management System using Multi-layered Architecture, DPS 2012, Distributed Processing Society of Japan, Matsuyama, Ehime
9. 13th October, 2012 Presentation on Research on Wireless Communication Network in the Smart Community, Wakkanai Renewable Energy Workshop, Renewable Energy Study and Research Group Hokkaido NPO, Venue: Wakkanai Hokusei Gakuen University
10. 6th March, 2012 Paper Presentation on Effective Campus Management through Web Enabled Campus-SIA (Student Information Application) , The International MultiConference of Engineers and Computer Scientists, Hongkong
11. 18th March, 2010 Paper Presentation on A Model for the Development of Universal Browser for Proper Utilization of Computer Resources Available in Service Cloud over Secured Environment , The International MultiConference of Engineers and Computer Scientists, Hongkong.
12. 12th Sep, 2009, Paper Presentation on Enhancement of Network Operation Through Capacity Planning, Management and Network Monitoring--A Case Study of Network Monitoring Through Nagios. International Symposium on "Problems of the Youth in the Third Millennium" , 12 September 2009, Wakkanai Hokusei Gakuen University, Hokkaido, Japan.
13. 28th May, 2008, Paper Presentation on "Educational Plan for Efficient Utilization of IT Equipment that Considers Global Environmental Impact", Sakhalin State University, Sakhalin, Russia.
14. 3rd/4th December 2007, Paper Presentation on "Critical Success Factors for Successful Implementation of SOA", Dubai International Convention and Exhibition Center-Dubai, UAE.
15. Moderator for a Panel Discussion, International Conference on Advance Technology and Electronic Transactions Organized by Wakkanai Hokusei Gakuen University, International Convention Center BICC, Kathmandu, Nepal.
16. July 14th, 2006, Paper Presentation on "Affordable Computing: The Challenges of The Grid 2.0" at International Conference on Advanced Technology and Electronic Transactions, Annapurna Hotel, Kathmandu, Nepal
17. 6th May, 2006, Paper Presentation on "Jini Based Grid: The Era of Affordable Computing", First NRN Japan Conference, Itabashi, Tokyo, Japan.
18. March 27th, 2006, Paper Presentation on "Jini Based Service Grid: Remote Service Invocation Model for Time Based Resource Allocation", CAN Infotech Nepal.

19. March 28th 2006, Paper Presentation on “IT on Global Context: Recommendation for IT Road Map to be adopted by Nepal”, IT conference organized by School Net Japan at Birendra International Conference Center, New Baneshowr, Kathmandu, Nepal.

Membership

- Member, IEEE
- Member, IACSIT (International Association of Computer Science and Information Technology)
- Member, IAENG (International Association of Engineers)
- Member, IPSJ (Information Processing Society of Japan)

Programming and Computer Skills

- Java, C++, C, php, ruby, perl, python
- HTML, XML, css, MySQL
- Windows, Linux, Unix, Free-BSD
- Grid Computing (GT4), JINI and Web service

Books Unpublished

- The importance of Internationalization of University and its implication, 2006
- Aspect Oriented Programming and the art of Meta programming, 2006
- SOA and Grid Computing, 2006

Reference

Prof. Katsumi Wasaki

Email: wasaki@cs.shinshu-u.ac.jp

Prof. Andoh Tomoharu

Email: tomoharu@wakhok.ac.jp

Assoc. Prof. Kazuhiko Sato

Email: kazu@mmm.muroran-it.ac.jp

Assoc. Prof. Tomoya Kitani

Email: t-kitani@inf.shizuoka.ac.jp

