

Curriculum Vitae

Sarawut Ninsawat

**Lecturer
Asian Institute of Technology
Thailand**

Updated on June 2015

Curriculum Vitae

I. Biographical Data

A. Name of candidate Sarawut Ninsawat

B. Education

DEGREE	YEAR	INSTITUTION
B. Sc. (Environment Science)	2000	Silpakorn University, Thailand
M. Sc. (Space Technology Applications and Research)	2002	Asian Institute of Technology, Thailand
Doctoral of Creative Cities (Urban Information)	2009	Osaka City University, Japan

C. Positions held

YEAR	ORGANIZATION	DESIGNATION	DUTIES
2013 – present	Remote Sensing and Geographic Information Systems, Asian Institute of Technology	Lecturer	Teaching and Research
2011 – 2013	Remote Sensing and Geographic Information Systems, Asian Institute of Technology	Instructor	Teaching and Research
2009 – 2011	GEO Grid Research Group, Information Technology Research Institute, National Institute of Advanced Industrial Science and Technology, Japan	Postdoctoral Researcher	Research
2003 – 2005	Space Technology Applications and Research, Asian Institute of Technology	Project Researcher	Research and Teaching assistant
2000 (Aug – Dec)	Department of Liberal Arts, Thammasat University	Special Teacher	Teaching
2000 (Jun – Aug)	Space Technology Applications and Research, Asian Institute of Technology	Research Assistant	Research

D. Special honors and awards

YEAR	AWARD
1998 – 2000	Three continuous prizes of highest grade from Environmental Science, Silpakorn University, Thailand
2000	First Rank and Second Class Honors with GPA 3.31 from Environmental Science, Silpakorn University, Thailand
2000	First outstanding graduated student of Thailand in field of Environmental science in year of 2000 given by the Thailand scientist association, Chulalongkorn University, Thailand
2002	Second Rank with GPA 3.94 from Space Technology Applications and Research, Asian Institute of Technology, Thailand
2006	Awarded Monbukagakusho (Monbusho) Scholarship from Japanese Government for Doctoral degree at Osaka City University, Osaka, Japan

II. Pedagogy

A. Experience as a teacher

1. Courses taught, including courses taught at partner institutions. Student enrollment in each course taught and average grade in each course.

YEAR	COURSE CODE/TITLE	# OF STUDENTS	AVERAGE GPA
<u>Aug 2011</u>	<u>AT76.9021/ Selected Topic WebGIS Technology</u>	<u>28</u>	<u>3.43</u>
<u>Aug 2011</u>	<u>IN84.21/ Remote Sensing and GIS for Disaster Mitigation</u>	<u>9</u>	<u>3.5</u>
<u>Jan 2012</u>	<u>AT76.09/ Digital Image Processing in Remote Sensing</u>	<u>14</u>	<u>3.43</u>
<u>InterSem 2012</u>	<u>AT76.9022/ Selected Topic Free and Open Source Software for Geospatial Analysis</u>	<u>11</u>	<u>3.65</u>
<u>Aug 2012</u>	<u>AT76.9021/ Selected Topic WebGIS Technology</u>	<u>11</u>	<u>3.27</u>
<u>Aug 2012</u>	<u>AT76.03/ Remote Sensing</u>	<u>16</u>	<u>3.33</u>
<u>Aug 2012</u>	<u>IN84.21/ Remote Sensing and GIS for Disaster Mitigation</u>	<u>9</u>	<u>3.56</u>
<u>Jan 2013</u>	<u>AT76.03 Remote Sensing</u>	<u>4</u>	<u>3.63</u>
<u>Jan 2013</u>	<u>AT76.09/ Digital Image Processing in Remote Sensing</u>	<u>4</u>	<u>3.63</u>
<u>Jan 2013</u>	<u>AT76.9027/ Selected Topic: Workshop on Sensor Web</u>	<u>5</u>	<u>4</u>
<u>August 2013</u>	<u>IN84.21/ Remote Sensing and GIS for Disaster Mitigation</u>	<u>12</u>	<u>3.58</u>
<u>Jan 2014</u>	<u>AT76.09/ Digital Image Processing in Remote Sensing</u>	<u>8</u>	<u>3.38</u>
<u>Jan 2014</u>	<u>AT76.9021/ Selected Topic WebGIS Technology</u>	<u>11</u>	<u>3.36</u>
<u>InterSem 2014</u>	<u>AT76.9022/ Selected Topic Free and Open Source Software for Geospatial Analysis</u>	<u>19</u>	<u>3.32</u>
<u>Aug 2014</u>	<u>AT76.9021/ Selected Topic WebGIS Technology</u>	<u>15</u>	<u>3.27</u>

Jan 2015	<u>AT76.03/ Remote Sensing</u>	<u>18</u>	<u>3.25</u>
Jan 2015	<u>AT76.09/ Digital Image Processing in Remote Sensing</u>	<u>11</u>	<u>3.46</u>

B. Evaluation of teaching

1. Copy of student teaching evaluation reports*
2. Copy of student research supervision evaluation reports.*
3. Copies of peer teaching evaluation reports.

C. Pedagogical Development

1. Publications: textbooks, laboratory manuals, articles in journals oriented toward pedagogy.

- Laboratory instruction in AIT
 - Remote sensing
 - WebGIS Technology
 - Free and Open Source Software for Geospatial Analysis
 - Workshop on Sensor Web

2. Grants related to pedagogy and curriculum development.

None

3. Initiation of new courses, degree programs, curricula (indicate the period delivered)

- AT76.9021 “*Selected Topic WebGIS Technology*” (delivered in August 2011 semester)
- AT76.9022 “*Selected Topic Free and Open Source Software for Geospatial Analysis*” (delivered in Inter Semester 2012)
- AT76.9027 “*Selected Topic: Workshop on Sensor Web*” (delivered in January Semester 2013)

4. Development and introduction of innovative pedagogical techniques.

- Encourage student and make them participate in an interactive learning process
- Giving prompt feedback to the students
- Arrange weekly RSGIS research student meeting
- Arrange online meeting with student via skype during the trip or students are in the field
- Use paper-less and cloud computing service report submission by students via dropbox service
- Provide ready-reference of lecture/laboratory instruction material by putting course material online on dropbox service
- Use the virtual machine technology in the laboratory session for arranging same system environment for all students.

5. Participation in workshops, short courses, etc. relating to improvement of teaching.

None

III. Student Research Supervision

A. Thesis supervised. Number of master and doctoral students graduated each year, on which the faculty served as committee chair or co-chair.

3.A.1 Summary of student research supervision at AIT (August 2011 – June 2015)

	GRADUATED		IN-PROGRESS	
STUDENTS	Chair of the Committee	Co-Chair of the Committee	Chair of the Committee	Co-Chair of the Committee
Doctoral				
Master's	20 4 (2014) 3 (2013) 13 (2012)	3 2 (2013) 1 (2012)	2 (2014)	

IV. Research

A. Publications

Publications must be listed with complete citations in the categories indicated below. Include all names of authors in the order in which they appear. List the number of the first page and last page of the paper. If papers are submitted or accepted for publication, copies of the letter of receipt or acceptance must be provided. Manuscripts in preparation should not be listed. Papers of a principally pedagogical nature must be listed in Section II, C.

1. Books and Monographs
None
2. Book Chapters
None
3. Refereed journal articles: international, regional, national. For each article, indicate the publisher of the journal and the number of SCOPUS citations.

3.A Summary of journal articles published

Refereed International Journals	Refereed Regional Journals	Refereed National Journals
(10)	-	(3)

In Progress		
Refereed International Journals	Refereed Regional Journals	Refereed National Journals
(2)		

3.B Articles in Refereed **International Journals**

1. C. Sirirattanapol, **S. Ninsawat** and N. K. Tripathi, M. Nagai (in press). IndoorNavi: The Hybrid Indoor Navigation System based on WiFi and NFC Positioning Techniques. *International Journal of Geoinformatics*. (ISSN: 1686-6576)
2. D. Pinto, S. Shrestha, M. S. Babel, and **S. Ninsawat** (2015). Delineation of groundwater potential zones in the Comoro watershed, Timor Leste using GIS, remote sensing and analytic hierarchy process (AHP) technique. *Applied Water Science*, 17 pages. (ISSN: 2190-5495)
3. R. B. Reyes, M. Nagai, Y. Kamiya, T. Tipdecho and **S. Ninsawat** (2015). Effect of sea level rise in the validation of geopotential/geoid models in Metro Manila, Philippines. *Survey Review*, 47(342). pp. 211-219. (ISSN: 0039-6265)
4. S. Bhagabati, A. Kawasaki, M. Babel, P. Rogers and **S. Ninsawat** (2014). A Cooperative Game Analysis of Transboundary Hydropower Development in the Lower Mekong: Case of the 3S Sub-basins. *Water Resource Management*, 22 pages. (ISSN: 1573-1650)

5. R. Samphutthanon, N. K. Tripathi, **S. Ninsawat**, R. Duboz (2013). Spatio-Temporal Distribution and Hotspots of Hand, Foot and Mouth Disease (HFMD) in Northern Thailand. *Int. J. Environ. Res. Public Health*, 11(1). pp. 312-336. (ISSN: 1660-4601)
6. S. Masumoto, S. Nonogaki, T. Nemoto, K. Sakurai, **S. Ninsawat**, S. Iwamura, H. Shoga, V. Raghavan and K. Shiono (2012). Development of Prototype System of Three Dimensional Geologic Modelling for Providing Geologic Information using Web-GIS. *International Journal of Geoinformatics*, 8(1). pp. 53-60. (ISSN: 1686-6576)
7. **S. Ninsawat**, V. Raghavan and S. Masumoto (2008). Integration of Web Processing Service and Sensor Observation Service for Distributed Geoprocessing using Real-Time Data. *Geoinformatics*, 19(3). pp. 171-179. (ISSN: 0388-502X)
8. **S. Ninsawat**, V. Raghavan, S. Masumoto and Y. Chemin (2007). Web Processing Service for Spatial Analysis using PyWPS and GRASS GIS. *International Journal of Geoinformatics*, 3(4). pp. 19-25. (ISSN: 1686-6576)
9. **S. Ninsawat** and N. Kumar Tripathi (2007). Mapping Coral Reef Condition in Phi Phi Island, Thailand using Image Fusion and Mahalanobis Distance Classifier. *International Journal of Geoinformatics*, 3(1) . pp. 67-74. (ISSN: 1686-6576)
10. D. Yoshida, **S. Ninsawat** and V. Raghavan (2007). Service Oriented Geospatial Data Management using Free and Open Source Software - A Prototype for Northern Region of the Philippines. *International Journal of Geoinformatics*, 3(4). pp. 9-18. (ISSN: 1686-657)

**International Journal of Geoinformatics is a Peer Review journal, cited in all major database such as SCOPUS, EBSCO, SWETS, GEOSCIENCE Australia, British Library)*

3.C Articles in Refereed **Regional Journals**

None

3.D Articles in Refereed **National Journals**

1. A. Kodaka, A. Kawasaki, M. Ohara, D. Komori and **S. Ninsawat** (2013). A Study on the Possibility of Mobile Phone Use as a Disaster Information Dissemination Mean for Rural Mountainous Areas in Thailand. *Institute of Social Safety Science*, 21, pp. 159-167. (ISSN: 0037-105X)[in Japanese]
2. N. Hoa Binh, **S. Ninsawat**, V. Raghavan, K. Kita and D. Yoshida (2006). A Mechanism for Location Based Library Services - Implementing Remote Book Lending System using Open Source Software. *Journal of Informatics*, 3(1). (ISSN: 1349-4511)
3. P. Bencharat, S. Lertlum and **S. Ninsawat** (2006). Mapserver Implementation for Cultural Applications in Thailand, Utilizing Open Source Software. *Journal of Informatics*, 3(1). (ISSN: 1349-4511)

4. Papers in Refereed Conference Proceedings

1. C. Mahakant, **S. Ninsawat**, N. Kumar Tripathi and M. Nagai (2014) Investigation of the Appropriate Approach to Generate the Noise Map from Crowdsourcing. In: *The 1st International Conference on Geo-informatics for Graduate Students and Young Researchers*, 9 – 11 June 2014, Chaing Rai, Thailand, 7 pages.

2. J. Chaitamart, **S. Ninsawat**, N. Kumar Tripathi and S. Lertlum (2014) Development of a Location Based Service Application using Augmented Reality for Historical Tourism on an iOS Platform. In: *The 1st International Conference on Geo-informatics for Graduate Students and Young Researchers*, 9 – 11 June 2014, Chaing Rai, Thailand, 8 pages.
3. W. Sirirojjanawong, **S. Ninsawat**, N. Kumar Tripathi and V. Phonekeo (2013) An Online Disease Surveillance and Warning System. In: *HealthGIS 2013*, 21 – 23 August 2013, Pathumthani, Thailand, 6 pages
4. **S. Ninsawat**, Y. Tanaka, H. Yamamoto, S. Tilak and P. Arzberger (2013) GEO GRID Platform for Integrated Earth Sensing. In: *The International Conference on E-Technologies and Business on the Web (EBW2013)*, 7 – 9 May 2013, Bangkok Thailand, 7 pages.
5. L. Chudech, **S. Ninsawat** and K. Honda (2012) Data Assimilation of DSSAT Model with Remote Sensing for Yield Estimation in Rainfed Rice Field Area. In: *GIS-IDEAS 2012*, 16-20 October 2012, Ho Chi Minh, Vietnam, 8 pages.
6. H. SHOGA, S. Masumoto, K. Sakurai, S. Nonogaki, **S. Ninsawat**, S. Iwamura, M. Mitamura and K. Shiono (2010) Three Dimensional Subsurface Geologic Model of Western Osaka Plain using Borehole Data Constructed by Modelling System Based on Web-GIS. In: *GIS-IDEAS 2010*, 6-11 December 2010, Hanoi, Vietnam, 6 pages.
7. **S. Ninsawat**, H. Yamamoto, R. Nakamura, A. Kamei, S. Kato and S. Tsuchida (2010) Development of OGC Framework for Estimating Air Temperature from MODIS LST and Sensor Network. In: *WebMGS 2010: 1st International Workshop on Pervasive Web Mapping, Geoprocessing and Services*, 26-27 August 2010, Como, Italy, 6 pages (CDROM).
8. S. Masumoto, S. Nonogaki, **S. Ninsawat**, S. Iwamura, K. Sakurai, H. Shoga, V. Raghavan and K. Shiono (2009) Development of Three Dimensional Geologic Modeling System using Web-GIS. In: *Geoinforum-2009*, 25-26 June 2009, Okinawa, Japan, 2 pages.
9. H. Shoga, S. Masumoto, K. Sakurai, S. Nonogaki, **S. Ninsawat**, S. Iwamura, M. Mitamura and K. Shiono (2009) Three Dimensional Subsurface Geologic Modeling with Web-GIS in Western Osaka Plain using Borehole Data. In: *Geoinforum-2009*, 25-26 June 2009, Okinawa, Japan, 2 pages.
10. S. Masumoto, S. Nonogaki, **S. Ninsawat**, S. Iwamura, K. Sakurai, H. Shoga, V. Raghavan and K. Shiono (2009) Development of Three Dimensional Geologic Modeling System using Web-GIS. In: *Geoinforum-2009*, 25-26 June 2009, Okinawa, Japan, 2 pages.
11. H. Shoga, S. Masumoto, K. Sakurai, S. Nonogaki, **S. Ninsawat**, S. Iwamura, M. Mitamura and K. Shiono (2009) Three Dimensional Subsurface Geologic Modeling with Web-GIS in Western Osaka Plain using Borehole Data. In: *Geoinforum-2009*, 25-26 June 2009, Okinawa, Japan, 2 pages.
12. **S. Ninsawat**, V. Raghavan and S. Masumoto (2008) Development of Distributed Web Service for Geoprocessing and 3D Visualization in Web-GIS Clients. In: *Proceedings of the GIS-IDEAS 2008*, 4-6 December 2008, Hanoi, Vietnam, pp. 269-274.
13. S. Masumoto, S. Nonogaki, **S. Ninsawat**, S. Iwamura, K. Sakurai, V. Raghavan, T. Nemoto and K. Shiono (2008) Development of Prototype System for Three Dimensional Geologic Modeling based on Web-GIS. In: *Proceedings of the GIS-IDEAS 2008*, 4-6 December 2008, Hanoi, Vietnam, pp. 83-88.
14. S. Akoijam, P. Thi Mai Thy, **S. Ninsawat** and V. Raghavan (2008) Change Detection of Multi Temporal Remote Sensing Data using Principal Component, Case Study:

- Pimpri Chinchwad Municipal Corporation (PCMC) India. In: *Proceedings of the GIS-IDEAS 2008*, 4-6 December 2008, Hanoi, Vietnam, pp. 135-140.
15. P. Thi Mai Thy, S. Akoijam, **S. Ninsawat** and V. Raghavan (2008) Using Satellite Image to Detect the Urban Expansion in Can Tho City, Vietnam. In: *Proceedings of the GIS-IDEAS 2008*, 4-6 December 2008, Hanoi, Vietnam, pp. 147-152.
 16. **S. Ninsawat**, V. Raghavan and S. Masumoto (2008) Service Oriented Architecture for 3D Geospatial Visualization in Web-GIS client. In: *Geoinforum-2008, 12-13 June 2008, Sapporo, Japan*, (Geoinformatics, 19(2)), pp. 146-147).
 17. S. Masumoto, **S. Ninsawat**, S. Nonogaki, S. Iwamura, K. Sakurai, V. Raghavan and K. Shiono (2008) Development of Prototype for Three Dimensional Geologic Modeling System based on Web-GIS. In: *Geoinforum-2008, 12-13 June 2008, Sapporo, Japan*, 2 pages.
 18. K. Sakurai, **S. Ninsawat**, K. Shiono and S. Masumoto (2008) Support System for Lithofacies Correlation of Borehole data as a Basic Tool of Three Dimensional Geologic modeling on Web-GIS. In: *Geoinforum-2008, 12-13 June 2008, Sapporo, Japan*, 2 pages.
 19. S. Katsura, **S. Ninsawat** and V. Raghavan (2008) Implementing Mobile GeoTagging Application using Free and Open Source Software. In: *Geoinforum-2008, 12-13 June 2008, Sapporo, Japan*, 2 pages.
 20. **S. Ninsawat** and V. Raghavan (2007) Utilization of Distributed OGC Web Services for Analysis of Remote Sensing Data. In: *Proceedings of the Remote Sensing Society of Japan 2007*, 6-7 December 2007, Sakai, Japan, pp. 19-20.
 21. **S. Ninsawat**, V. Raghavan and S. Masumoto (2007) Implementation of Distributed Geoprocessing System using WPS Open Standard. In: *Geoinforum-2007, 21-22 June 2007, Shimane, Japan*, 2 pages.
 22. N. Hoa Binh, V. Raghavan, **S. Ninsawat** and M. Shibayama (2007) Development of Historical GIS for Hanoi City using GIS enabled Portal Framework. In: *Geoinforum-2007, 21-22 June 2007, Shimane, Japan*, 2 pages.
 23. V. Raghavan, N. Hoa Binh, **S. Ninsawat**, H. Dinh Duan and M. Shibayama (2006) Implementing Historical GIS using Free and Open Source Software. In: *Proceeding of International Symposium on Digital Preservation of Historical Heritage in ThangLong – Hanoi*, 2006, pp.89-97.
 24. **S. Ninsawat**, V. Raghavan, S. Masumoto and Y. Chemin (2006) From GrassLinks to Web Processing Services with GRASS GIS. In: *Proceedings of the GIS-IDEAS 2006*, 9-11 November 2006, Ho Chi Minh, Vietnam, pp. 322-327.
 25. N. Hoa Binh, V. Raghavan, **S. Ninsawat** and M. Shibayama (2006) Implementing Spatially Enabled Portal and Content Management Systems. In: *Proceedings of the GIS-IDEAS 2006*, 9-11 November 2006, Ho Chi Minh, Vietnam, pp. 269-274.
 26. D. Yoshida, **S. Ninsawat**, M. Darauay, M. Ramando, Regional Development Council II and V. Raghavan (2006) Development of Open Web-GIS Prototype for Regional Geographic Information Network Project in the Philippines Region II. In: *Proceedings of the GIS-IDEAS 2006*, 9-11 November 2006, Ho Chi Minh, Vietnam, pp. 371-376.
 27. **S. Ninsawat**, V. Raghavan, D. Yoshida and S. Masumoto (2006) Adoption of AJAX and X3D Technology in Open Source Web GIS Application. In: *Geoinforum-2006, 29-30 June 2006, Yamanashi, Japan*, 2 pages.

28. N. Hoa Binh, V. Raghavan, **S. Ninsawat**, H. Dinh Duan and M. Shibayama (2006) Developing Spatially Enabled Portal for Historical GIS Application in Hanoi. In: *Geoinforum-2006*, 29-30 June 2006, Yamanachi, Japan, 2 pages.
29. **S. Ninsawat** and K. Honda (2004) The Application of GMS Remote Sensing Image Server for Mobile Devices. In: *Proceedings of the 25th Asian Conference on Remote Sensing*, 22-26 November 2004, Chaing Mai, Thailand, (D-4.9 WebGIS), pp.1200-1205.
30. **S. Ninsawat** and K. Honda (2004) Development of NOAA and Landsat Image Server using FOSS. In: *Proceedings of the FOSS/GRASS Users Conference*, 12 – 14 September 2004, Bangkok, Thailand, Online, 15 pages.
31. **S. Ninsawat**, K. Honda, T. Horanont, R. Yokoyama and A. Ines (2003) Remote Sensing Image Server based on WMS for GMS (Greater Mekong Sub-Region) Countries. In: *Proceedings of the 24th Asian Conference on Remote Sensing*, 3-7 November 2003, Busan, Korea, CD-ROM, 3 pages, (FA5 Spatial Data Infrastructure 2).
32. **S. Ninsawat**, N. Kumar Tripathi, M. Kusanagi, F. Borne and K. Jensen (2003) Mapping Coral Reefs of Phi Phi Island using Remote Sensing and GIS for Integrated Coastal Zone Management. In: *Proceedings of the Regional Conference on DIGITAL GMS*, 26-28 February 2003, Asian Institute of Technology, Thailand, 6 pages.

5. Papers in Workshops

None

6. Abstracts

1. A.T.A. Peiris, S. Shrestha and **S. Ninsawat** (2015) Trends in Extreme Temperature and Rainfall Indices in Ping River Basin, Thailand. In: *RFCC2015*, 1-3 July 2015, Pathumthani, Thailand.
2. **S. Ninsawat** and Y. Tanaka (2012) Satellite Field Integrator based on OGC Web Services to enhance GEO science study. In: *APAN 33 Workshop*, 13- 17 February 2012, Chaing Mai, Thailand.
3. **S. Ninsawat** and Y. Tanaka (2011) SFI: Framework for Integration of Satellite Data and Field Sensor Data. In: *PRAGMA 21 Workshop*, 17 – 20 October 2011, Sapporo, Japan.
4. **S. Ninsawat** and S. Kato (2010) Development of Estimated Surface Air Temperature (ESAT) map based on OGC Web Services. In: *PRAGMA 19 Workshop*, 13 – 15 September 2010, Changchun, China.
5. **S. Ninsawat**, H. Yamamoto, R. Nakamura, A. Kamei and S. Tsuchida (2010) GEO Grid System based on OGC Framework for e-Science: Case Study Air Temperature and MODIS LST. In: *FOSS4G2010*, 6-9 September 2010, Barcelona, Spain.
6. R. Nakamura, H. Yamamoto, A. Kamei, T. Maeda, S. Tsuchida, **S. Ninsawat** and S. Nagai (2010) GEO Grid における衛星画像とその場観測データの統合. In: *日本地球惑星科学連合 2010 年度連合大会*, 24-28 May 2010, Chiba, Japan.
7. **S. Ninsawat**, H. Yamamoto, A. Kamei, R. Nakamura, S. Tsuchida and T. Maeda (2010) Development of Integration Framework for Sensor Network and Satellite Image based on OGC Web Services. In: *EGU2010*, 2-7 May 2010, Vienna, Austria.

8. R. Nakamura, **S. Ninsawat**, H. Yamamoto, A. Kamei, N. Yamamoto and S. Tsuchida (2010) Integration of Satellite Imagery and In-situ Measurements on GEO Grid. In: *Workshop on Coral Reef Observing Technologies*, 5 March 2010, San Diego, USA.
9. R. Nakamura, N. Yamamoto, **S. Ninsawat**, Y. Tanaka, S. Sekiguchi, B. Cheng, F. Cheng and C. Zheng (2010) Routine Use of GEO Science Infrastructure in PRAGMA. In: *PRAGMA 18 Workshop*, 3-4 March 2010, San Diego, USA.
10. A. Kamei, **S. Ninsawat**, H. Yamamoto, R. Nakamura, S. Tsuchida and T. Maeda (2009) Integrated System of Satellite and Field Data for Mapping of Gross Primary Production. In: *Asia Flux Workshop 2009*, 27-29 October 2009, Hokkaido, Japan.
11. **S. Ninsawat** (2008) Federating Satellite data and Sensor data. In: *PRAGMA 17 Workshop*, 28 October 2009, Hanoi, Vietnam.
12. **S. Ninsawat**, R. Nakamura, H. Yamamoto, A. Kamei and S. Tsuchida (2009) Validation of Satellite Image with Ground Sensor Network based on OGG Web Services Framework. In: *FOSS4G2009*, 20-23 October 2009, Sydney, Australia.
13. **S. Ninsawat**, V. Raghavan and S. Masumoto (2008) Implementation of Distributed Service Oriented Framework for 3D Visualization in Web-GIS Clients, In: *FOSS4G2008*, 29 September – 3 October 2008, Cape Town, South Africa.
14. **S. Ninsawat** and V. Raghavan (2007) Open Source Participatory GIS Framework through Man-Machine Interactions. In: *Kansai Open Source Forum 2007*, 9-10 November 2007, Osaka, Japan.
15. **S. Ninsawat** and V. Raghavan (2007) Development of Geoprocessing Service with Realtime Data using WPS and SOS Open Standard. In: *FOSS4G2007*, 24-27 September 2007, Victoria, Canada.
16. **S. Ninsawat**, V. Raghavan, S. Masumoto, Y. Chemin and H. Nakano (2006) X3D Technology Approach for Developing 3D Web-GIS System. In: *FOSS4G2006*, 11-15 September 2006, Lausanne, Switzerland.
17. **S. Ninsawat** and K. Honda (2005) Development of NOAA and Landsat Image Server using Web Map Service. In: *the 19th Asia-Pacific Advanced Network*, 24-28 January 2005, Bangkok, Thailand, (EMWG: Web Mapping Services – I).

7. Development Project Reports

1. Smart Survey mobile application: funded by Mitr Phol Sugarcane Research Center
2. Smart PWA mobile application: GIS Mobile Application on iOS and Android device for supporting Thai Provincial Waterworks Authority
3. Asian Summer School in Bangkok 2013 funded by Chubu University, 2014
4. Asian Summer School in Bangkok 2013 funded by Chubu University, 2013
5. Asian Summer School in Bangkok 2012 funded by Chubu University, 2012
6. An investigation on disaster information dissemination system for local community in rural mountainous area in Asia, funded by Japan Science and Technology Agency (JST), 2012
7. Development of Three Dimensional Geologic Modeling System using Web-GIS, funded by Ministry of Education, Culture, Sports, Science and Technology (MEXT), 2009
8. Application of Web Mapping Technology for Malaria Case Management, funded by Royal Thai Government, 2005
9. UNESCAP Transportation Database, funded by UNESCAP, 2005

10. Web Map Service System for GMS countries, funded by Japanese Government (through JICA and GMS-AG), 2004
11. Road Management Research, funded by Japan Bank of International Cooperation, 2003

8. Non-refereed Publications

None

9. Patents

None

10. Invited Lectures and Keynote Addresses

1. Invited Lecture on “Ubiquitous Geospatial in 2015”, Department of Computer Science, Faculty of Science, Khon Kaen University, Khon Kaen, Thailand, 16 January, 2015
2. Invited Lecture on “Ubiquitous Geospatial in 2015”, Department of Geography, Faculty of Liberal Arts, Thammasart University, Pathumthai, Thailand, 1 December, 2014
3. Invited Lecture on “Application of Remote Sensing”, Department of Environmental Science, Faculty of Science, Silpakorn University, Nakorn Pathom, Thailand, 11 November, 2014
4. Invited Lecture on “Web GIS technology for effective data sharing”, Faculty of Civil Engineering, Mahidol University, Nakorn Pathom, Thailand, October, 2013
5. OGC Tutorials: Southeast Asia International Joint Research and Training Program in High-Performance Computing Applications and Networking Technology, 6-10 December 2010, National Center for High-Performance Computing, Taichung, Taiwan.
6. OGC Web Services for Environment Monitoring: Southeast Asia International Joint Research and Training Program in High-Performance Computing Applications and Networking Technology, 6-10 December 2010, National Center for High-Performance Computing, Taichung, Taiwan.
7. Utilization of Satellite Image and Field Sensor for Environmental Study, Southeast Asia International Joint Research and Training Program in High-Performance Computing Applications and Networking Technology, 30 November – 4 December 2009, National Center for High-Performance Computing, Taichung, Taiwan.
8. Utilization of Real-time Data from Sensor Observation for Decision Support System based on OGC Web Services, GEOSS Sensor Web Workshop, 20 May 2009, Tsukuba, Japan.

11. Total number of citations to the faculty member's published work, as shown by SCOPUS (excluding self citations).

On 16 June 2015

SCOPUS Citation report:

Total Citation in SCOPUS: 4

H-Index: 1

(Print citation overview attached from SCOPUS)

On 16 June 2015

Google Scholar report:

Total Citation: 51

H-Index: 5

(Print citation overview attached from Google Scholar)

B. Research in progress

1. Brief descriptions of current projects

I have been engaged in developing my professional research in following area

- Web GIS system and applications
- OGC Web Services
- Real-time or Near-time mapping
- Sensor Web applications
- Distributed Geospatial data sharing
- Crowd sourcing for geospatial data
- Geoinformatics for disaster and environment management
- Location-based service
- GIS-based Mobile application
- Free Open Source Software development
- Augmented Reality with LBS application

2. Brief descriptions of plans for future projects

I wish to continue those researches as indicated in section B.1. There are proposal which have been submitted to Thai Provincial Waterworks Authority and Thammasarat University for developed GIS application using Free Open Source software.

- Developing Virtual Globe Application for Geography Education of AEC using Free Open Source Software
- Developing Georeferencing module in Quantum GIS for Thai Provincial Waterworks Authority

Additionally, the emergence of Smartphone has led to greater use of various Location-Based services (LBS). LBS were confined to simple location-tracking services. Smartphone have completely changed LBS. Now, LBS application with a wide variety of business model have emerged. A research proposal was submitted to Mitr Phol Sugarcane Research Center for developing GIS-based mobile application for field survey and the first phase is started since September 2014. The second phase will start in 2015.

Recently, I plan to initiate the research of applying the GIS for logistic and Vehicle Routing Problem. I have worked with Dr. Thammarat Koottatep, SERD, AIT for initiate a research of "GIS Oriented Networking and Service Optimization Technique for Faecal Sludge Management".

In this study, GIS and optimization algorithm will be used to identify best route in terms of distance and time between depot / office and treatment plant covering maximum number of customers. The customized GIS-based application can be developed to indicate queued customers, best route for vehicle, availability and location of vehicle.

C. Research grants and sponsored projects

1. List of proposals submitted.

S.N.	Title	Year	Sponsor	Status
1	Sugarcane (co-PI)	2015	Mitr Phol Sugarcane Research Center	Approved
2	Cane GIS Phase 2	2015	Mitr Phol Sugarcane Research Center	Approved
3	Asian Summer School in Bangkok 2014	2014	Chubu University	Approved/Completed
4	Cane GIS	2014	Mitr Phol Sugarcane Research Center	Approved
5	GIS Oriented Networking and Service Optimization Technique for Faecal Sludge Management	2014	Dr. Thammarat Koottatep, SERD, AIT	Approved
6	Developing Georeferencing module in Quantum GIS for Thai Provincial Waterworks Authority	2014	Thai Provincial Waterworks Authority	Submitted
7	Nakorn Nayok Smart Province Demonstration Project	2014	Ministry of Information and Communication Technology	Suspended
8	SERVIR Mekong	2014	USAID	Not approved
9	Developing Virtual Globe Application for Geography Education of AEC using Free Open Source Software	2014	Thammasat University	Submitted
10	Smart PWA mobile application: GIS Mobile Application on iOS and Android device for supporting Thai Provincial Waterworks Authority	2013	Thai Provincial Waterworks Authority	Approved/Completed
11	Asian Summer School in Bangkok 2013	2013	Chubu University	Approved/Completed
12	Development of Database and Web GIS System for Supporting Natural Resources and Forest Fire Crisis Management in Kuan Kreang Peat Swamp Forest	2012	National Research Council of Thailand	Not approved
13	Asian Summer School in Bangkok 2012	2012	Chubu University	Approved/Completed
14	Prototype system of Crowd Sourcing data for Disaster Mitigation	2012	Thailand's National Electronics and Computer Technology	Not approved

		Center	
--	--	--------	--

2. List of research grants and sponsored projects. For each grant and project specify the project duration, overhead and faculty time income to the institute.

1. Title : Asian Summer School in Bangkok 2014
2. Title : Asian Summer School in Bangkok 2013
3. Title : Asian Summer School in Bangkok 2012

Grants/Sponsor	<ul style="list-style-type: none"> • Chubu University • Visionary Value Japan Inc. • Advanced Intelligence and Earth System Science Co.,Ltd Siam Cement Group
Duration	1 year
Cost/Overhead (Baht)	58,100 (2014) 114,296.47 (2013) 103,231 (2012)
Description	<p>With the cooperation of the Chubu Institute of Advanced Studies, Chubu University, and Remote Sensing and GIS (RS&GIS) Field of Study, Asian Institute of Technology (AIT) organized the “Asian Summer School in Bangkok” program at AIT, Pathumthani, Thailand. The theme of the program was “Geoinformatics and Issues on Sustainable Development in Asia”.</p> <p>The Asian Summer School target on the undergraduate, graduate students and researchers who are interested in GIS and Remote Sensing, sustainable development and issues in environment, megacities, communities, natural resource management, disaster management in Asian, as well as those who are seeking for international learning experience in English. Students will attend lectures related to sustainable development in Asia, Geoinformatics (GIS, RS and related technology) and its contribution to sustainable development, in order to deepen the awareness on status and issues in Asia where a rapid development is taking place, as well as on the usefulness of GIS as a tool. Student is expected to realize rapid development and issues in Asia through site visits as well. The lectures will be conducted in English, thus students will understand the importance of English for absorbing and sharing knowledge. This course will foster sense and awareness among students for international society and for issues that will be linked to undergraduate projects or master thesis.</p>

4. Title : Smart PWA mobile application: GIS Mobile Application on iOS and Android device for supporting Thai Provincial Waterworks Authority

Grants/Sponsor	Thai Provincial Waterworks Authority (Subcontractors with D.T.S. Technology Partnership Limited)
Duration	1 year
Cost/Overhead (Baht)	89,600
Description	The purpose of this project is to develop GIS mobile

	<p>application on tablet device for both of iOS and Android operating system that can support user's regular operation. The developed application provide powerful GIS analysis function such as "Pipeline Risk Identification", "Leak Detection and Water Loss Control tool" and "Water Consumption Analysis tool". The developed function will be performed in the cloud environment and rendering the results on tablet devices under constrain of limited computing resources of the device and 3G bandwidth.</p> <p>The base system is constructed by the integration of jQuery mobile, HTML5, CSS and JavaScript and the integration of Web-GIS Engine, GIS and relational database to support for OGC WMS (Web Map Service), and OGC WFS (Web Feature Service).</p>
--	--

5. Title : Cane GIS

Grants/Sponsor	Mitr Phol Sugarcane Research Center
Duration	4 month
Cost/Overhead (Baht)	47,200
Description	To develop GIS-based system for supporting the Sugar Cane farm in the concept of SmartFarm, In this project, mobile application on Android tablet device will be developed as the supporting tools for Mitr Phol Sugarcane Research Center for regularly field survey tasks. The GPS, Camera, mobile network communication of device will facilitate the staff and increasing performance, accuracy of data capturing operation. Additionally, the Web-GIS application will be developed to provide the powerful GIS analysis function cooperated with real-time survey data and available of remote sensing data for better sugar cane farm and industrial management.

6. Title : Cane GIS Phrase 2

Grants/Sponsor	Mitr Phol Sugarcane Research Center
Duration	4 month
Cost/Overhead (Baht)	66,400
Description	To develop GIS-based system for supporting the Sugar Cane farm in the concept of SmartFarm, this project is a second phase of Cane GIS project. In this project, the Web-GIS application will be developed to provide the powerful GIS analysis function cooperated with real-time survey data and available of remote sensing data for better sugar cane farm and industrial management.

7. Title : Identifying specific diseases and pests on sugarcane leaves and trunks using image processing (Sugarcane)

Grants/Sponsor	Mitr Phol Sugarcane Research Center
Duration	4 month
Cost/Overhead (Baht)	72,000

Role	Co-PI
Description	To find the possibility in using machine learning and image process techniques to build an automatic system which is capable of detect and classify specific diseases infecting the sugar cane leaves and trunks, and to output useful indices to analyze the severity of the disease.

V. Service/Outreach

A. Professional Service

1. Leadership in policy and program development in professional organizations.
None
2. Participation in organizational responses to policy, practice, or structural issues, which affect the field.
None
3. Significant elective or appointed offices held.
 - (a) Charter Members, OSGeo (Open Source Geospatial) Foundation (2013-present)
4. Organization of training courses, conferences, seminars, and workshops.
 - (a) Spatial Data Sharing using Free and Open Source Software course in “The Open Source Geographic Information System (GIS) Technology for Sustainable Management of Natural Resources and Agricultural Production” program.
 - (i) JICA-GIS 2006, 4-7 September 2006
 - (ii) JICA-GIS 2007, 10-13 September 2007
 - (iii) JICA-GIS 2008, 15-18 September 2008
 - (b) VN – GEO Grid Training Courses for Computational System and Applications in Processing the Global Earth Observation Data, 5-6 December 2011, Vietnam Academy of Science and Technology, Ho Chi Minh, Vietnam
 - (c) Asian Summer School program in Bangkok 2012, 19 – 31 August 2012, Asian Institute of Technology
 - (d) Asian Summer School program in Bangkok 2013, 19 – 31 August 2013, Asian Institute of Technology
 - (e) Asian Summer School program in Bangkok 2014, 18 – 30 August 2014, Asian Institute of Technology
 - (f) Programme Coordinator, Free & Open Source Solutions for Geoinformatics-Asia Conference, 2 – 5 December 2014, Asian Institute of Technology
5. Editing or serving on advisory boards of journals
None
6. Government or international organization panels, expert witness, reports to government or international agencies
None
7. Participation in development projects
None

B. Significant Institute Committee Service (Indicate the period of service)

1. Field-of-Study/Program
 1. Organize RS&GIS research seminar as weekly event
 2. AIT Promotion activities – regular in Thailand
 3. Programme coordinator – Unified International Bachelor-Masters Degree Program: Geoinformatics between Chaing Mai University and AIT

2. School

1. Member Task Force for AIT relocating operation (Arrange SET research student temporary office in King Mongkut's Institute of Technology Latkrabang) – November 2011 – March 2012

3. Institute

1. RTG Scholarship Committee - June,2014

C. Administrative service

1. Field-of-Study/Program

1. Interim Coordinator, RSGIS FoS since January 2015

2. School

None

3. Institute

None

D. Promotion and Marketing (Briefly describe role or involvement)

1. SET Promotion trip to Chiang Mai Rajabhat University and Maejo University, Chiang Mai on 23 December 2011
2. SET Promotion trip to Thammasart University, Pathumthani 29 February 2012
3. SET Promotion trip to Silpakorn University, Nakorn Pathom on 8 March 2012
4. SET Promotion trip to Kasetsart University, Bangkok on 27 March 2012
5. Organize RS&GIS FoS, SET Promotion booth in the 5th Thai Geography and Geoinformatics Student Conference, Thammasart University, 25-26 October 2012
6. SET Promotion trip to King Mongkut's Institute of Technology Ladkrabang, Bangkok, 28 November 2013
7. SET Promotion trip to Rajamangala University of Technology Lanna, Chiang Mai on 6 March 2014
8. SET Promotion trip to Chiang Mai Rajabhat University, Chiang Mai on 7 March 2014
9. SET Promotion trip to PetroVietnam, Hanoi on 23 April 2014
10. SET Promotion trip to Hanoi University of Mining and Geology, Hanoi on 24 April 2014
11. Organize RS&GIS FoS Promotion activities in the 7th Geography and Geo-informatics Undergraduate Conference of Thailand, which is the largest conference of Geography and Geo-informatics Undergraduate study in Thailand, Chiang Mai on 24 – 25 December 2014
12. Organize RS&GIS FoS Promotion activities in the Khon Kaen University, Khon Kaen on 16 January 2015

E. Community Service

1. Consulting activities

- (1) Chair of Geosciences working group in Pacific Rim Applications and Grid Middleware Assembly (PRAGMA) group
- (2) Serving as Technical Committee member of Open Geospatial Consortium (OGC) standards
- (3) Member in several of OGC Standard Working Group (SWG)
 - (a) Sensor Observation Service (SOS) 2.0 SWG
 - (b) SensorML 2.0 SWG
 - (c) Observation & Measurement (O&M) 2.0 SWG
 - (d) Sensor Web Enablement (SWE) Common SWG
 - (e) Web Processing Service 2.0 SWG
 - (f) Web Coverage Service 2.0 SWG

- (4) Member of consulting working group for AIT-Nakorn Nayok Smart Province team in a subgroup of “City Planning and Logistics”
2. Serving on program committees
 - (1) Serving as Academic Committee of FOSS4G2012 conference, 10 – 15 September 2012, Beijing, China (The conference has been canceled on 26th July 2012.)
 - (2) Serving as Programme Coordinator, Free & Open Source Solutions for Geoinformatics-Asia Conference, 2 - 5 December 2014, Asian Institute of Technology
3. Refereeing of journal articles, books, grant proposals, etc.
None
4. Serving as external examiner
None

VI. Ability to Cooperate

AIT attaches great significance to the ability to co-operate. This includes the capacity to work jointly with colleagues and superiors.

1. Joint research activity.
 - (1) Cooperate with Prof. Kiyoshi Honda from Chubu University to launch a crisis management site for information sharing on flood mainly supporting foreign residents during the Thailand floods crisis 2011 (<http://de21.digitalasia.chubu.ac.jp/floodmap/>).
 - (2) Cooperate with Prof. Kiyoshi Honda from Chubu University to launch the Asian Summer School program in 2012, 2013 and 2014. The participants from 12 countries are attended the program for two weeks.
 - (3) Initiating the research of applying the GIS for logistic and Vehicle Routing Problem with Dr. Thammarat Koottatep, SERD, AIT in the topic of “GIS Oriented Networking and Service Optimization Technique for Faecal Sludge Management”
 - (4) Work with Dr. Sornthep Vannarat, Large Scale Simulation Research Laboratory (LSR), NECTEC in project proposal of “Crowd Sourcing for Disaster Data Sharing”
 - (5) Work with Dr. Daroonwan Kamthonkiat, Department of Geography, Faculty of Liberal Arts, Thammasat University in project proposal of “Development of Database and Web GIS System for Supporting Natural Resources and Forest Fire Crisis Management in Kuan Kreang Peat Swamp Forest” and “Developing Virtual Globe Application for Geography Education of AEC using Free Open Source Software”
 - (6) Co-Chair, Master student with Dr. Akiyuki Kawasaki, WEM, SET, AIT
2. Joint pedagogical activity.
 - (1) Chair in Master Thesis in CS and ICT, SET, AIT
 - (2) Co-teaching of DPMM course IN84.21 Remote Sensing and GIS for Disaster Mitigation
 - (3) Co-teaching of RSGIS course AT76.03 Remote Sensing
 - (4) Serving as thesis committee member of the student from WEM, CS, IM and ASE
 - (5) Serving as PhD Thesis committee member of student from Mahasarakham University, Thailand
 - (6) Serving as Master Thesis committee member of student from Mahidol University, Thailand
 - (7) Serving as PhD Thesis external supervision of student from Postgraduate Institute of Agriculture (PGIA), University of Peradeniya, Sri Lanka

8. Interaction with the public and private sectors.
 - (1) Work with GIS department of Thai Provincial Waterworks Authority with research project “Smart PWA mobile application: GIS Mobile Application on iOS and Android device for supporting Thai Provincial Waterworks Authority” and also informally consultancy
 - (2) Initiate research project of “Cane GIS” with Mitr Phol Sugarcane Research Center
 - (3) Also informally through research cooperation with public sectors especially I have regularly visited Dr. Sornthep Vannarat from Large Scale Simulation Research Laboratory (LSR), NECTEC for every two weeks for research discussion and advisory.

VII. Personal Statement

Nowadays, the Web GIS have very extensively developed and is being widely used as scores of Internet users are gaining exposure to spatial data for day-to-day needs. There are an extremely needs of skillful human resource who can develop a useful application for society. Before I joined AIT as faculty member, there was no specific course offer on this topic. Some introduction and applications of Web GIS technology were taught in the course of “Advanced Remote Sensing” and “Geographical Information System”. During the first year of my career at AIT, I have developed and successfully lead a new area of specialization within RSGIS/SET: “**Web GIS Technology**” and “**Free and Open Source software for Geospatial**”. Based on a web survey AIT is perhaps the only university in Asian Developing counties where specific course for Web GIS Technology is offered. There were very few students whose thesis research was related to Web GIS technology compared with other research topics since student have not adequate knowledge and lack of practical skill and support software for developing research in the topic of Web GIS system and its applications. After both area have been brought to RSGIS, AIT, there are more emergence research related to Web GIS technology, Mobile Application development, Crowd Sourcing and Social Network related. In 2013, I initiated a project of “Smart PWA GIS mobile application for supporting Thai Provincial Waterworks Authority”. The developed application provide powerful GIS analysis function such as “Pipeline Risk Identification“, “Leak Detection and Water Loss Control tool” and “Water Consumption Analysis tool”. Recently, a project of “Cane GIS” with Mitr Phol Sugarcane Research Center is approved. In this project, mobile application on Android tablet device will be developed as the supporting tools for Mitr Phol Sugarcane Research Center for regularly field survey tasks. The GPS, Camera, mobile network communication of device will facilitate the staff and increasing performance, accuracy of data capturing operation.

I always follow the “learner-centered” approach by encouraging the students into participatory learning process by questioning and proving the comments. I am always open and available for student anytime. Regularly, research student will present their progress every week to ensure that they are doing satisfactory progress and also proving the comments for the research. My student evaluation have been so far very good, however I always very high respect of the student’s feedbacks and improve myself if it is necessary

CERTIFICATION:

I, the undersigned, certify that, to the best of my knowledge and belief, these biodata correctly describe myself, my qualifications and my experience. I understand that any willful misstatement described herein may lead to my disqualification.

SIGNATURE:

DATE:

Day / Month / Year

Appendix: Financial Productivity

(For AIT internal use only)

For each year since the last contract renewal, show:

1. the revenue generated from teaching and from student research supervision. This is to be calculated by multiplying the enrollment by the number of credit hours by the fee per credit hour.
2. the revenue generated from overhead to the Institute from sponsored projects, training, and consultancy. For projects with multiple PIs, the overhead should be divided by the number of PIs.



Personnel Affairs

ASIAN INSTITUTE OF TECHNOLOGY

POLICY AND PROCEDURE STATEMENT

Reference	PA	Issued By	PRESIDENT
Section	1	Responsible Officer	VPAA
Serial No.	2-5	Date Issued	14 June 2006
No. of Pages	7	Date Revised	12 September 2012

TITLE: **FACULTY EVALUATION CRITERIA**

I. PURPOSE

1. To set forth the evaluation criteria for faculty evaluation and the conditions and qualifications for appointment and promotion to the various ranks.
2. The evaluation process at AIT serves the purposes of advising the Institute on the suitability of candidates for promotion and contract renewal and of providing feedback to the candidate on his/her performance in research, pedagogy, and service. The Institute uses the evaluation process to encourage and reward academic excellence and to rectify mediocrity and marginal contribution in a fair and constructive manner.

II. CONDITIONS AND QUALIFICATIONS FOR APPOINTMENT AND PROMOTION

A. Lecturer

1. A faculty member is appointed to the rank of Lecturer if he/she possesses a doctoral degree with professional knowledge and two years' experience in the related field. He/she should have good communication skills in English both in written and spoken. A candidate for this rank must be creative with an ability to adapt to a multi-culture setting in order to handle students of different nationalities.
2. A Lecturer is appointed in order to participate in the educational and research programs of the Institute. A Lecturer will be expected to teach, advise students and serve as a member or chairperson of master degree student program committees. A Lecturer may also serve as a member of a doctoral program committee, but not as a chair.
3. A Lecturer must serve at least two years in the rank of Lecturer before he/she is considered for the rank of Assistant Professor. He/She will be evaluated by the Faculty Evaluation Panel and will be required to give a seminar.

B. Professorial Ranks

1. An earned doctoral degree from a reputable institution is required for all professorial ranks.
2. The three ranks can be thought of as a continuum of performance from potential to actual – potential at the Assistant Professor level to actual at the Professor level.

3. Assistant Professor

- i. A member of faculty is appointed to the rank of Assistant Professor if there is promise of his/her development toward the rank of Associate Professor. A strong academic record should be present and there should be a clear indication that he/she has the aptitudes of a successful faculty member and will grow in stature and eventually qualify for the rank of Associate Professor. A candidate for this rank must have at least, two years of teaching/research experience and must show promise of successful research and scholarship. At least two research papers in refereed international journals, including publications resulting from his/her doctoral dissertation, may be accepted as evidence of such promise.
- ii. A faculty member may not serve more than eight years at the rank of Assistant Professor.

4. Associate Professor

An Associate Professor should demonstrate mature and independent scholarship. Research and pedagogy should indicate creativity, significance and effectiveness. It should be emphasized that in all cases the candidate for promotion must have publications in internationally recognized refereed journals of high stature or have published one or more textbooks with a leading press. The required number of publications shall be a function of their quality and significance.

5. Professor

The rank of Professor at AIT is given only to those having made significant internationally recognized contributions in research, pedagogy, or their profession and who have demonstrated leadership in the Institute, their profession, or their field. Candidates to this rank must demonstrate that their research, pedagogical, or professional contributions have had a significant impact on the advancement of knowledge. Isolated contributions are not sufficient; rather candidates must show evidence of significant sustained contribution.

III. EVALUATION CRITERIA

1. Candidates for promotion and contract renewal are evaluated in the three broad areas of research, pedagogy, and service. To be considered for promotion, a faculty member must demonstrate above average competence and professional accomplishments in all three areas and must excel in at least one of pedagogy, research, or service to the candidate's profession.
2. In all three areas, AIT attaches great significance to the ability to co-operate. This includes the capacity to work jointly with colleagues. In this regard, it is important for faculty members to be present on campus for a sufficient amount of time each week to allow for interaction with colleagues. A faculty member may also show ability to cooperate in interaction with the public and private sectors.
3. In addition, the financial well-being of the Institute demands that each faculty member contributes sufficiently to the generation of revenue. This is primarily in the form of tuition from teaching and overhead from sponsored projects, including research, training, and consulting.

A. Research

In general, quality is more important than quantity, although there must be sufficient quantity to provide evidence of a significant level of scholarly productivity.

Several factors serve as measures of the quality of a scholarly record.

- a) The impact of research can be measured by the number of citations to a candidate's published work.
- b) The quality of the journals in which the individual publishes can be measured by the impact factors of the journals. For books the quality of the publisher and particularly the popularity as indicated by the number of editors/reprints is important.
- c) An important measure of the significance of research comes in the form of comments from external evaluators who are internationally recognized scholars in the candidates' field. External evaluators play a key role by providing a degree of objectivity, independent of any institutional, political, or financial factors, and expert assessment of the significance and impact of a faculty member's work.
- d) Outside funding of research from prestigious foundations and institutes can be viewed as a significant part of the research record, depending on the relative size of the grant and the significance of the questions posed.

- e) The composition of the portfolio of published works also matters. A collection of good, but unconnected articles, may not produce the same sense of impact that a set of articles advancing a coherent line of scholarship would. It is not unprecedented, though, for faculty to shift scholarly areas of focus. The personal statement provided by the candidate is, therefore, a very important guide to the significance of each scholarly piece and their connection to each other.
- f) Another issue is the connection of published work to the dissertation. Highly regarded articles from the dissertation do count, but not as much as highly regarded articles reflecting scholarship beyond the dissertation.
- g) The scholarly record should provide clear evidence of independent thinking and research. Thus, although many junior scholars continue to do some collaborative work with a former Ph.D. or postdoctoral advisor, it is important to establish a record of growing independence from former advisors.
- h) Invitations to talk at other universities and prestigious events add to the scholarly record but generally play a relatively minor role independent of other measures of the scholarly record.
- i) AIT values the ability to collaborate, so coauthored articles are an important factor. It is, however, necessary to identify the contributions of the candidate to these articles. A significant portion of the overall research record should include articles and works to which the candidate has made the primary conceptual contributions.

B. Pedagogy

Pedagogy includes teaching/learning, student research supervision, pedagogical development, and publications of a pedagogical nature.

The following factors are considered in evaluation of pedagogical performance:

- a) Teaching/learning effectiveness. In the area of teaching/learning, the candidate should demonstrate mastery of knowledge in the areas taught, competency in organization and presentation of course materials, conscientiousness and fairness in relationships with students, skill in instruction, and commitment to developing better approaches to teaching/learning.
- b) Teaching load. This includes the number of courses taught and their enrollments.

- c) Student research. The number and quality of student research study projects, theses, and dissertations supervised.
- d) Student course evaluations. At a minimum, candidates are expected to have numeric scores above 3.0 on the typical 5-point scale. Special interest is placed on evaluations of the instructor's contribution to the class, the overall quality of the class, and, especially, the amount students learned.
- e) Peer teaching evaluations. It is best if the file includes peer reviews from several different faculty colleagues. Especially in cases of interdisciplinary courses, it may be useful to have peer reviews by faculty in different disciplines.
- f) Courses co-taught with other instructors from either within or outside AIT.
- g) Mentoring record. A very important part of our teaching/learning responsibilities takes place outside of any specific course. The advising of students is a significant contribution to the teaching/learning mission of the Institute.
- h) Initiation and participation in curriculum development (e.g. new courses, new programs, flexible degree programs).
- i) Demonstrated effectiveness in the development and use of innovative methods in teaching/learning.
- j) Publications of a pedagogical nature (e.g. textbooks, articles on pedagogical techniques).
- k) Formal personal pedagogical development. This includes participation in workshops and short courses on pedagogy.

C. Service

Communities thrive when all members contribute to the common good. Thus we expect that candidates will have been involved in the life of the Institute, of the local and regional community, and of their professional associations.

- a) Professional Service. Impact on and acceptance in the profession as measured by dissemination in scholarly and professional journals. Leadership in policy and program development in professional organizations. Participation in organizational responses to policy, practice, or structural issues, which affect the field. Holding significant elective or appointed offices. Receipt of awards or citations for professional contributions. Organization of training courses, conferences, seminars, and workshops.

- b) Community Service. Serving on program committees. Consulting activities. Refereeing of journal articles, books, grant proposals, etc. Serving as external examiner.
 - c) Institute Service. Committee service. Administrative service. Promotion and marketing.
- D. Personal Statement. The personal statement is a self-reflection by a faculty member of his/her work. The reflective statement should indicate what the faculty member thinks of his/her most important accomplishments and the significance of the accomplishments in achieving Field of Study, School, institutional, and/or professional goals. The faculty member may organize his/her reflective statement under these categories: pedagogy, research, and service and outreach, and indicate time spent on each activity and specify which activity or activities he/she has excelled. The faculty member should also explain how he/she integrated pedagogy, research, and service and outreach to achieve synergy and balance. The faculty member may illustrate how his/her one activity has benefited other activity/activities; for example, how research has benefited pedagogy and teaching/learning and vice versa. The faculty member may state how the earlier feedback from the Faculty Evaluation Panel/President helped him/her to improve quality of his/her work. The faculty member should indicate a plan of his/her future portfolio of activities and the expected impact.

The personal statement should not exceed two pages in length.

IV. CRITERIA FOR CONTRACT RENEWAL

Contract renewal requires a continued level of performance consistent with that required for promotion to the faculty member's current rank. In addition, each faculty member is expected to have generated sufficient revenue over the previous contract period to at least equal his/her salary cost over that period. This includes revenue from teaching and overhead from sponsored projects, including research, training, and consulting.

Modification History:	1 st Revision	20 June 2012
	Reviewed By:	AIT Management Team (12 September 2012, 20 June 2012, 13 June 2012, 16 May 2012) Academic Senate (25 July 2012)
	2 nd Revision	
Related Policies	PA-1-1-1 – Employment of Faculty: General Work Regulations PA-1-2-1 – Procedure for Recruitment and Appointment of Direct-Hire Faculty PA-1-2-2 – Procedure for Evaluation of Faculty for Promotion PA-1-2-3 – Procedure for Evaluation of Faculty for Contract Renewal	
Keywords		
Rationale for Revisions:	(20 June 2012 / 13 June 2012 / 16 May 2012, AITMT) <ul style="list-style-type: none"> • Discontinue the position of Instructor. • Developed criteria for the rank of Lecturer linked with the professorial ranks as a continuum of performance. • Required a more comprehensive personal statement. 	



Personnel Affairs

ASIAN INSTITUTE OF TECHNOLOGY

POLICY AND PROCEDURE STATEMENT

Reference	PA	Issued By	PRESIDENT
Section	1	Responsible Officer	VPAA
Serial No.	2-2	Date Issued	14 June 2006
No. of Pages	6	Date Revised	13 June 2012

TITLE: **PROCEDURE FOR EVALUATION OF FACULTY FOR PROMOTION**

I. PURPOSE

To set forth the procedures for evaluation of faculty for promotion.

II. PROCEDURE

1. Twice per year the Faculty Evaluation Panel (FEP) (*see PA-1-2-4 for the panel's Terms of Reference*) issues a call for applications for promotion to all faculty members.
2. The processing of each promotion case is initiated within the School in which the faculty member holds his/her primary appointment. Faculty members, including School Deans and/or equivalent positions, wishing to be considered for promotion must submit a letter and all required documentation to the Vice President for Academic Affairs (VPAA), with a copy of the letter sent to the concerned School Dean, within four weeks of the call for applications.
3. All promotion cases within the School are handled by a standing School Promotions Committee consisting of all faculty members holding the rank of Professor with primary appointment in that School. The committee is chaired by the Dean.
4. When a School does not have sufficient number of professors, the School Promotions Committee will be supplemented with professors from outside the School/Institute.
5. The faculty members of the evaluated faculty member's thematic area (including faculty members familiar with the academic contribution of the evaluated faculty) are requested to provide their assessment of the candidate and the Dean collects and summarizes the individual assessments for presentation to the Promotions Committee.
6. The School conducts an assessment to determine whether the strengths of the case warrant soliciting external evaluations. The School Promotions Committee shall meet and issue a recommendation within four months after

receiving the complete required documentation from the faculty members wishing to be considered for promotion. A positive recommendation requires a positive vote from a simple majority of the committee members present.

- i) Upon positive recommendation, the case, with all current documentation, is transmitted to the VPAA in order to obtain external evaluations. The School Promotions Committee is responsible for the organization, accuracy and completeness of all materials submitted.
 - ii) Upon negative recommendation, the Dean communicates the result to the candidate, along with specific recommendations that will help the candidate progress towards promotion.
7. The promotion cases of School Deans and/or equivalent positions are handled by the VPAA in consultation with a faculty member of Professor rank of the evaluated Dean's thematic area or an external expert familiar with the academic field of the evaluated Dean (replacing the standing School Promotions Committee).
 8. The promotion cases of Associate Professors in the School, where the Dean is in the rank of Associate Professor and where there is only one Professor or none, will be handled by the VPAA in consultation with the School Professor or a faculty member of the evaluated faculty member's thematic area or an external expert familiar with the academic field of the evaluated faculty member.
 9. Upon receiving a positive recommendation as per the procedure laid down in points 2. to 8. above for promotion cases to the rank of Professor, the VPAA will solicit written evaluations from external experts. *(See Section IV and Annex 1 below for specification of the number of evaluations required and the content of the letter soliciting the evaluations.)*
 10. Once all external letters of evaluation are received, the VPAA schedules the cases for promotion to the rank of Professor to be considered at the next available FEP meeting and informs the School Dean, as well as the School's representative for the case. Cases for promotion to the rank of Professor shall be heard only by the FEP members holding the rank of Professor.
 11. Upon receiving a positive recommendation from the School for cases for promotion to the rank of Associate Professor, the VPAA schedules the case to be considered at the next available FEP meeting and informs the School Dean, as well as the School's representative for the case.
 12. At the hearing, the case is presented to the FEP by the chosen representative. After a period of discussion with the representative, the FEP goes into closed session, debates the merits of the case, and votes on the case. A case must receive a positive vote from two-thirds of the committee members present and eligible to vote on that case in order to pass. The FEP writes a summary of its recommendation, discussing the strengths and weaknesses of the case and justifying its decision. In the case of a split vote, a report prepared by the

panel members holding a minority point of view may also be included. The FEP shall issue a recommendation within two months after receiving the School Promotions Committee's recommendation.

- i) In the case of a negative recommendation, the VPAA communicates the result to the candidate along with specific recommendations that will help the candidate progress towards promotion, with copies furnished to the School Dean and the President.
 - ii) In the case of a positive recommendation, the panel's recommendation along with all case documents are transmitted to the President for his/her consideration, with a copy furnished to the School Dean.
13. In the case of negative action by the President, the VPAA and School Dean are informed by the President's Office. The President's Office issues a letter informing the candidate along with specific recommendations that will help move the candidate closer to promotion.
 14. In the case of positive action by the President for promotion to the rank of Associate Professor, the President's Office informs the VPAA and the School Dean and issues a letter to the candidate.
 15. In the case of positive action by the President for promotion to the rank of Professor, the President's decision along with all case documents are transmitted to the Executive Committee of the Board of Trustees for their consideration.
 16. In the case of positive action by the Executive Committee, the President's Office informs the VPAA and the School Dean and issues a letter to the candidate.
 17. In the case of negative action by the Executive Committee, the VPAA and School Dean are informed by the President's Office. The President's Office sends a letter informing the candidate along with specific recommendations that will help the candidate progress towards promotion.

III. COMMUNICATION WITH THE CANDIDATE AND CAMPUS COMMUNITY

1. In the case of negative recommendation or action at any point in the promotion process, the Dean shall provide the candidate with a summary of the institute and/or School decision and with specific recommendations that will help move the faculty member closer to promotion. The recommendations should point out areas of strength, identify areas requiring further development, and recommend strategies for achieving the needed improvement.
2. In the case of negative recommendation or action at any point in the promotion process for a School Dean, the VPAA shall provide the Dean with a summary of the institute and/or external experts' decision and with specific

recommendations that will help move the Dean closer to promotion. The recommendations should point out areas of strength, identify areas requiring further development, and recommend strategies for achieving the needed improvement.

3. In the case of conclusive positive action on a promotion case, the candidate's curriculum vitae, as submitted for evaluation, shall be posted on the FEP web page. CVs will be Internet-published, while the anonymous external evaluations will be Intranet-published.

IV. EXTERNAL EVALUATION

1. External evaluations will not be solicited for Assistant Professors considered for promotion to the rank of Associate Professor. (*See Section V on Appeals below.*)
2. For promotion or appointment to the rank of Professor, letters from at least five external evaluators are required.
3. The choice of external evaluators and all communication with them is the responsibility of the VPAA.
4. The packet sent to the external evaluators should include the candidate's curriculum vitae in the standard format (*see PA-1-2-6 Format for the Promotion and Contract Renewal Document*), copies of selected publications, and the standard cover letter (*Annex 1 below*).

V. APPEALS

Faculty candidates who feel that their case was not given fair treatment have the right to appeal the decision. Appeals must be made in writing within 30 days of notification of the decision. In the appeals hearing, all concerned parties (Faculty Evaluation Panel; School Promotions Committee) should have representation.

1. Appeal of a negative decision at the School level is made to the VPAA who shall schedule the case to be considered by the FEP.
2. Appeal of a negative decision by the FEP is made to the President.

In the case of an appeal, external evaluations from at least three external evaluators may be solicited for Assistant Professors considered for promotion to the rank of Associate Professor.

VI. RE-APPLICATIONS

1. In case of internal rejection (either by the Dean/School Promotions Committee or by the VPAA/Faculty Evaluations Panel), the applicant can only resubmit his/her application after a lapse of one year from the date of rejection.
2. In case of negative recommendations by external reviewers, the applicant can resubmit his/her application after a lapse of two years from the date of rejection.

Modification History:	1 st Revision	27 July 2006
	Reviewed By:	AIT Management Team (13 June 2012, 16 May 2012, 18 April 2012) Academic Senate (25 April 2012) VPAA; Decision Meeting
	2 nd Revision	23 August 2006
	3 rd Revision	19 January 2007
	4 th Revision	6 July 2011 (AITMT)
	5 th Revision	13 June 2012
Related Policies	PA-1-1-1 – Employment of Faculty: General Work Regulations PA-1-2-4 – Institute Faculty Evaluation Panel Terms of Reference PA-1-2-5 – Faculty Evaluation Guidelines PA-1-2-6 – Format for the Promotion and Contract Renewal Document	
Keywords		
Rationale for Revisions:	<p><u>(13 June 2012 / 16 May 2012, AITMT)</u></p> <ul style="list-style-type: none"> • Revised evaluation process: when School Deans are considered for promotion; and when a School does not have sufficient number of Professors. • Revised the cover letter to external evaluators <hr/> <ul style="list-style-type: none"> • Establishment and refinement of procedures <p><u>(6 July 2011, AITMT)</u></p> <ul style="list-style-type: none"> • New School management structure (<i>with effect from 1 September 2011</i>). • Extension of application period. • Nomination of qualified faculty. • School's full assessment at the onset. • No external evaluations for Assistant Professors considered for promotion to the rank of Associate Professor (but may be solicited in the case of appeals). • Representation in appeals hearing. <p><u>(7 June 2011, AITMT)</u></p> <ul style="list-style-type: none"> • Timeframe for School Promotions Committee and Faculty Evaluation Panel's issuance of recommendations. • Publication of CVs and external evaluations. • Re-submission of applications. 	

Annex 1

COVER LETTER TO EXTERNAL EVALUATORS

Dear Professor _____ :

Dr. _____ is being considered for promotion to professor in the _____ program in the School of _____. The institute faculty evaluation panel seeks your confidential evaluation of the materials Dr. _____ has submitted for consideration, and your conclusion as to whether these materials establish a record of (a) research, scholarship, and professional activities, (b) pedagogical qualifications, and (c) service that warrants promotion to this rank at an institution of AIT's caliber. I am forwarding to you the materials submitted for review. Please use these materials as the basis for your evaluation and conclusion. Please note that this is a request for evaluation, not a request for endorsement or recommendation. As such, the use of superlatives without analysis or mention of specific indicators that support such assessments will not be helpful in our deliberations. We would particularly value your assessment of the quality and originality of Dr. _____'s work and the impact it has had on the field. A copy of our criteria for promotion is enclosed to aid you in your assessment.

In your response, we also ask that you indicate the nature and length of your acquaintance with Dr. _____ .

We highly regard your support, and request you to provide us with a brief resume for our record and further reference.

External reviews are an integral and critical part of the review process for promotion at AIT. We recognize the burden this request entails and sincerely thank you for your willingness to undertake such a time-consuming task.

We would appreciate receiving your review at your earliest convenience, and if possible by _____ (date).

Sincerely,

Vice President for Academic Affairs

Enclosures: Institute criteria for promotion
Institute procedure for promotion
materials forwarded for review