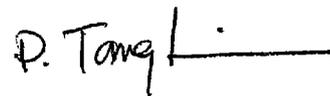


Reference

1. Dispatched Japanese Experts
2. Counterpart personnel trained in Japan
3. Equipment provided from Japan
4. Accomplishment in each laboratory
5. Publication in each laboratory
6. Studentes graduated in each year
7. Counterpart list as of April 2002

A handwritten signature in black ink, appearing to be 'C. J.', with a long vertical stroke extending downwards from the bottom of the 'J'.A handwritten signature in black ink that reads 'P. Tong' followed by a horizontal line.

**JICA Long-term Expert  
(JFY 1997-2002)**

Position	No.	Title	Name	JFY	Duration		Organization
Chief Advisor	1	Mr.	Takashi OTSUKA	1997-1998	01-Dec-97	31-Mar-99	Ministry of Posts and Telecommunications
	2	Mr.	Masabumi KAWAMURA	1999-2001	23-Mar-99	31-Aug-01	Ministry of Posts and Telecommunications
	3	Mr.	Fumihiko NAKAGAWA	2001-2002	20-Aug-01	30-Sep-02	Ministry of Public Management, Home Affairs, Posts and Telecommunications
Project Coordinator	1	Mr.	Tsunehiro KAWAKITA	1997-2000	08-Oct-97	07-Oct-00	Japan International Cooperation Agency
	2	Mr.	Hiroshi IWADATE	2000-2002	20-Nov-00	30-Sep-02	Japan International Cooperation Agency
Long-term Expert in Telecommunication System	1	Prof.Dr.	Yoshiaki MORIYA	1997-1998	26-Jan-98	10-Mar-99	Tokai University
Long-term Expert in Information Tehcnology	1	Prof.Dr.	Makoto DOI	1999-2000	20-Sep-99	27-Sep-00	Tokai University
Long-term Expert in Signal Processing	1	Prof.Dr.	Moriyuki MATSUO	1998-1999	05-Mar-99	28-Mar-00	Tokai University
	2	Prof.Dr.	Masaaki KANDO	1999-2000	08-Mar-00	28-Mar-01	Tokai University

**JICA Short-term Expert  
(October 1, 1997 - March 31, 2002)**

JFY	No.	Title	Name of Expert	Duration		Expert Organization
1997	1	Prof. Dr.	Hiromu HASHIMOTO	09-Mar-98	15-Mar-98	Tokai University
1997	2	Assoc.Prof.Dr.	Jun-ichi TAKADA	15-Mar-98	26-Mar-98	Tokyo Institute of Technology
1997	3	Prof. Dr.	Shigeyuki OHARA	15-Mar-98	29-Mar-98	Tokai University
1997	4	Prof. Dr.	Hiroaki KUNIEDA	24-Mar-98	06-Apr-98	Tokyo Institute of Technology
1998	1	Assoc.Prof.	Hiroshi HIRATA	20-Jul-98	10-Aug-98	Tokai University
1998	2	Prof. Dr.	Shigeyuki OHARA	09-Aug-98	30-Aug-98	Tokai University
1998	3	Prof. Dr.	Shozo KONDO	10-Aug-98	16-Aug-98	Tokai University
1998	4	Prof. Dr.	Hiromu HASHIMOTO	10-Aug-98	19-Aug-98	Tokai University
1998	5	Asst.Prof.Dr.	Yasuhisa HATTORI	10-Aug-98	19-Aug-98	Tokai University
1998	6	Assoc.Prof.Dr.	Tetsushi IKEGAMI	20-Sep-98	26-Sep-98	Meiji University
1998	7	Prof. Dr.	Hiroaki KUNIEDA	14-Nov-98	29-Nov-98	Tokyo Institute of Technology
1998	8	Research Associate Dr.	Tsuyoshi ISSHIKI	14-Nov-98	29-Nov-98	Tokyo Institute of Technology
1998	9	Mr.	Takeshi ISHIGAKI	14-Nov-98	29-Nov-98	Tokyo Institute of Technology
1998	10	Assoc.Prof.Dr.	Jun-ichi TAKADA	15-Nov-98	29-Nov-98	Tokyo Institute of Technology
1998	11	Prof. Dr.	Yoshikuni ONOZATO	21-Nov-98	29-Nov-98	Gunma University
1998	12	Prof. Dr.	Makoto SATO	21-Nov-98	01-Dec-98	Tokyo Institute of Technology
1998	13	Prof. Dr.	Moriyuki MATSUO	18-Dec-98	26-Dec-98	Tokai University
1998	14	Prof. Dr.	Hirohisa UCHIDA	14-Dec-98	19-Dec-98	Tokai University
1998	15	Prof. Dr.	Yasoji SUZUKI	16-Dec-98	25-Dec-98	Tokai University
1998	16	Prof. Dr.	Sadaoki FURUI	17-Dec-98	26-Dec-98	Tokyo Institute of Technology
1998	17	Assoc.Prof.	Hiroshi HIRATA	01-Mar-99	22-Mar-99	Tokai University
1998	18	Prof. Dr.	Yoshikuni ONOZATO	06-Mar-99	14-Mar-99	Gunma University
1998	19	Prof. Dr.	Hiromu HASHIMOTO	08-Mar-99	13-Mar-99	Tokai University
1998	20	Prof. Dr.	Yoshikazu MIYANAGA	14-Mar-99	21-Mar-99	Hokkaido University
1998	21	Prof. Dr.	Shigeyuki OHARA	14-Mar-99	28-Mar-99	Tokai University
1998	22	Prof. Dr.	Shuichi NITTA	28-Mar-99	06-Apr-99	Tokyo University of Agriculture & Technology

JFY	No.	Title	Name of Expert	Duration		Expert Organization
1999	1	Mr.	Yukio YAMANAKA	04-Jul-99	11-Jul-99	Communication Research Laboratory
1999	2	Assoc.Prof.	Hiroshi HIRATA	21-Jul-99	08-Aug-99	Tokai University
1999	3	Prof. Dr.	Yoshiaki MORIYA	22-Jul-99	14-Aug-99	Tokai University
1999	4	Assoc. Prof. Dr.	Kiyooki ATSUTA	01-Aug-99	14-Aug-99	Tokai University
1999	5	Prof. Dr.	Toshio WAKABAYASHI	07-Aug-99	21-Aug-99	Tokai University
1999	6	Prof. Dr.	Shigeyuki OHARA	08-Aug-99	05-Sep-99	Tokai University
1999	7	Prof. Dr.	Hiromu HASHIMOTO	09-Aug-99	17-Aug-99	Tokai University
1999	8	Asst.Prof.Dr.	Yasuhisa HATTORI	09-Aug-99	17-Aug-99	Tokai University
1999	9	Prof. Dr.	Shozo KONDO	15-Aug-99	28-Aug-99	Tokai University
1999	10	Assoc. Prof. Dr.	Tetsushi IKEGAMI	22-Aug-99	02-Sep-99	Meiji University
1999	11	Prof. Dr.	Kazunori SATO	25-Aug-99	07-Sep-99	Tokyo Institute of Technology
1999	12	Prof. Dr.	Shuichi NITTA	13-Sep-99	18-Sep-99	Tokyo University of Agriculture & Technology
1999	13	Assoc. Prof. Dr.	Jun-ichi TAKADA	07-Nov-99	20-Nov-99	Tokyo Institute of Technology
1999	14	Prof. Dr.	Yasushi KATO	25-Nov-99	14-Dec-99	Sendai National Collage of Technology
1999	15	Prof. Dr.	Hiroaki KUNIEDA	28-Nov-99	11-Dec-99	Tokyo Institute of Technology
1999	16	Research Associate Dr.	Tsuyoshi ISSHIKI	28-Nov-99	11-Dec-99	Tokyo Institute of Technology
1999	17	Prof. Dr.	Makoto SATO	30-Nov-99	14-Dec-99	Tokyo Institute of Technology
1999	18	Prof. Dr.	Nobuyuki TAKAHASHI	20-Dec-99	29-Dec-99	Tokai University
1999	19	Mr.	Hisamitsu MINAKOSHI	24-Jan-00	12-Feb-00	Communication Research Laboratory
1999	20	Assoc. Prof.	Hiroshi HIRATA	24-Feb-00	10-Mar-00	Tokai University
1999	21	Assoc.Prof.Dr.	Tetsushi IKEGAMI	05-Mar-00	11-Mar-00	Meiji University
1999	22	Prof. Dr.	Shigenori TOMIYAMA	06-Mar-00	18-Mar-00	Tokai University
1999	23	Assoc. Prof.	Masatoshi ANABUKI	06-Mar-00	18-Mar-00	Tokai University
1999	24	Prof. Dr.	Yoshiaki MORIYA	09-Mar-00	25-Mar-00	Tokai University
1999	25	Prof. Dr.	Shozo KONDO	15-Mar-00	24-Mar-00	Tokai University
1999	26	Prof. Dr.	Shigeyuki OHARA	15-Mar-00	29-Mar-00	Tokai University
1999	27	Prof. Dr.	Yasoji SUZUKI	15-Mar-00	24-Mar-00	Tokai University
1999	28	Prof. Dr.	Sadaoki FURUI	18-Mar-00	27-Mar-00	Tokyo Institute of Technology
1999	29	Prof. Dr.	Yoshikazu MIYANAGA	19-Mar-00	28-Mar-00	Hokkaido University
1999	30	Prof. Dr.	Shuichi NITTA	26-Mar-00	01-Apr-00	Tokyo University of Agriculture & Technology

JFY	No.	Title	Name of Expert	Duration		Expert Organization
2000	1	Prof. Dr.	Kiyomichi ARAKI	15-May-00	30-Sep-00	Tokyo Institute of Technology
2000	2	Mr.	Hisamitsu MINAKOSHI	02-Jul-00	16-Jul-00	Communication Research Laboratory
2000	3	Assoc.Prof.Dr.	Jun-ichi TAKADA	23-Jul-00	04-Aug-00	Tokyo Institute of Technology
2000	4	Prof. Dr.	Takehiko TOMIKAWA	30-Jul-00	18-Aug-00	Kanagawa Institute of Technology
2000	5	Prof. Dr.	Yoshikazu MIYANAGA	31-Jul-00	15-Aug-00	Hokkaido University
2000	6	Assoc. Prof.	Hiroshi HIRATA	31-Jul-00	12-Aug-00	Tokai University
2000	7	Prof. Dr.	Hiromu HASHIMOTO	10-Aug-00	21-Aug-00	Tokai University
2000	8	Asst. Prof. Dr.	Yasuhisa HATTORI	10-Aug-00	21-Aug-00	Tokai University
2000	9	Assoc.Prof.Dr.	Tetsushi IKEGAMI	14-Aug-00	19-Aug-00	Meiji University
2000	10	Prof. Dr.	Shozo KONDO	15-Aug-00	28-Aug-00	Tokai University
2000	11	Assoc.Prof.Dr.	Kazuhito HAMAMOTO	15-Aug-00	28-Aug-00	Tokai University
2000	12	Assoc. Prof.	Noriyuki KOMINE	20-Aug-00	09-Sep-00	Tokai University
2000	13	Prof. Dr.	Shigeyuki OHARA	23-Aug-00	09-Sep-00	Tokai University
2000	14	Prof. Dr.	Toshio WAKABAYASHI	27-Aug-00	09-Sep-00	Tokai University
2000	15	Prof. Dr.	Hiroaki KUNIEDA	18-Sep-00	30-Sep-00	Tokyo Institute of Technology
2000	16	Research Associate Dr.	Tsuyoshi ISSHIKI	18-Sep-00	30-Sep-00	Tokyo Institute of Technology
2000	17	Mr.	Hiroshi IWADATE	01-Oct-00	29-Oct-00	JICA
2000	18	Prof. Dr.	Shuichi NITTA	23-Oct-00	02-Nov-00	Tokyo University of Agriculture & Technology
2000	19	Mr.	Yukio YAMANAKA	13-Nov-00	22-Nov-00	Communication Research Laboratory
2000	20	Prof. Dr.	Kaoru TAKAHASHI	13-Dec-00	27-Dec-00	Sendai National Collage of Technology
1999	21	Prof. Dr.	Yoshiaki MORIYA	19-Dec-99	06-Jan-00	Tokai University
2000	22	Prof. Dr.	Shozo KONDO	06-Mar-01	21-Mar-01	Tokai University
2000	23	Assoc. Prof.	Hiroshi HIRATA	07-Mar-01	21-Mar-01	Tokai University
2000	24	Prof. Dr.	Shuichi NITTA	11-Mar-01	17-Mar-01	Tokyo University of Agriculture & Technology
2000	25	Prof. Dr.	Hiromu HASHIMOTO	11-Mar-01	17-Mar-01	Tokai University
2000	26	Asst.Prof.Dr.	Yasuhisa HATTORI	11-Mar-01	17-Mar-01	Tokai University
2000	27	Prof. Dr.	Shigeyuki OHARA	12-Mar-01	22-Mar-01	Tokai University
2000	28	Assoc.Prof.Dr.	Kazuhito HAMAMOTO	12-Mar-01	23-Mar-01	Tokai University
2000	29	Prof. Dr.	Kiyomichi ARAKI	18-Mar-01	24-Mar-01	Tokyo Institute of Technology
2000	30	Assoc.Prof.Dr.	Jun-ichi TAKADA	18-Mar-01	24-Mar-01	Tokyo Institute of Technology
2000	31	Prof. Dr.	Yoshikazu MIYANAGA	18-Mar-01	29-Mar-01	Hokkaido University
2000	32	Prof. Dr.	Matsuichi YAMADA	25-Mar-01	31-Mar-01	Tokyo University of Technology
2000	33	Prof. Dr.	Yoshiaki MORIYA	25-Mar-01	31-Mar-01	Tokai University

JFY	No.	Title	Name of Expert	Duration		Expert Organization
2001	1	Prof. Dr.	Toshio WAKABAYASHI	16-Apr-01	22-Sep-01	Tokai University
2001	2	Assoc.Prof.	Hiroshi HIRATA	01-Aug-01	16-Aug-01	Tokai University
2001	3	Assoc.Prof.	Noriyuki KOMINE	01-Aug-01	16-Aug-01	Tokai University
2001	4	Prof. Dr.	Hideo KOBAYASHI	05-Aug-01	16-Aug-01	Mie University
2001	5	Prof. Dr.	Shozo KONDO	07-Aug-01	18-Aug-01	Tokai University
2001	6	Assoc.Prof.Dr.	Kazuhito HAMAMOTO	07-Aug-01	25-Aug-01	Tokai University
2001	7	Prof. Dr.	Shigeyuki OHARA	08-Aug-01	29-Aug-01	Tokai University
2001	8	Prof. Dr.	Shigenori TOMIYAMA	13-Aug-01	23-Aug-01	Tokai University
2001	9	Prof. Dr.	Hiromu HASHIMOTO	13-Aug-01	23-Aug-01	Tokai University
2001	10	Asst. Prof. Dr.	Yasuhisa HATTORI	13-Aug-01	23-Aug-01	Tokai University
2001	11	Prof. Dr.	Matsuichi YAMADA	13-Aug-01	25-Aug-01	Tokyo University of Technology
2001	12	Prof. Dr.	Kiyomishi ARAKI	19-Aug-01	26-Aug-01	Tokyo Institute of Technology
2001	13	Prof. Dr.	Yoshikazu MIYANAGA	19-Aug-01	26-Aug-01	Hokkaido University
2001	14	Prof. Dr.	Shuichi NITTA	26-Aug-01	01-Sep-01	Salesian Polytechnic
2001	15	Prof. Dr.	Hiroaki KUNIEDA	27-Aug-01	2001/9/31	Tokyo Institute of Technology
2001	16	Assoc.Prof.Dr.	Tetsushi IKEGAMI	02-Sep-01	08-Sep-01	Meiji University
2001	17	Prof. Dr.	Yoshiaki MORIYA	16-Sep-01	19-Jan-02	Tokai University
2001	18	Assoc.Prof.Dr.	Jun-ichi TAKADA	23-Sep-01	04-Oct-01	Tokyo Institute of Technology
2001	19	Prof. Dr.	Yasushi KATO	26-Sep-01	14-Oct-01	Sendai National Collage of Technology
2001	20	Prof. Dr.	Hiromu HASHIMOTO	27-Dec-01	09-Jan-02	Tokai University
2001	21	Asst.Prof.Dr.	Yasuhisa HATTORI	27-Dec-01	09-Jan-02	Tokai University
2001- 2002	22	Prof. Dr.	Yoshiaki MORIYA	10-Feb-02	30-Sep-02	Tokai University
2001	23	Prof. Dr.	Makoto SATO	28-Feb-02	06-Mar-02	Tokyo Institute of Technology
2001	24	Assoc.Prof.Dr.	Tetsushi IKEGAMI	03-Mar-02	09-Mar-02	Meiji University
2001	25	Prof. Dr.	Shuichi NITTA	03-Mar-02	23-Mar-02	Salesian Polytechnic
2001	26	Prof. Dr.	Hideo KOBAYASHI	10-Mar-02	16-Mar-02	Mie University
2001	27	Prof. Dr.	Matsuichi YAMADA	10-Mar-02	20-Mar-02	Tokyo University of Technology
2001	28	Assoc.Prof.	Masatoshi ANABUKI	11-Mar-02	23-Mar-02	Tokai University
2001	29	Assoc.Prof.Dr.	Kazuhito HAMAMOTO	11-Mar-02	30-Mar-02	Tokai University
2001	30	Prof. Dr.	Shigeyuki OHARA	18-Mar-02	30-Mar-02	Tokai University

### Counterpart Training in Japan (JFY 1997-2001)

JFY	No.	Researcher	C/P Organization	Duration		ReCCIT Laboratory
1997	1	Dr. Chanboon Sathiwiriyawong	Tokai University	07-Jan-98	06-Mar-98	Multimedia & Virtual Research
1997	2	Dr. Kiattisak Kumwachara	Tokyo Institute of Technology	03-Mar-98	30-May-98	Mixed Signal Processing
1997	3	Ms. Phornsuk Ratiroch-anant	Tokai University	29-Mar-98	30-May-98	Control and Mechatronics
1997	4	Mr. Thurdsak Leauhatong	Tokai University	28-Mar-98	28-Mar-99	Biomedical Signal and Image
1997	5	Dr. Monai Krairiksh	JICA	30-Mar-99	10-Apr-99	Project Manager
1998	1	Mr. Komsak Meksamoot	Tokyo Institute of Technology	07-Jul-98	23-Dec-98	Wireless Communication
1998	2	Dr. Chom Kimpan	Tokyo Institute of Technology	04-Oct-98	31-Oct-98	Information Science
1998	3	Dr. Tawil Paungma	Meiji University	13-Dec-98	23-Dec-98	Mobile Communication
1998	4	Mr. Somboon Suwan	Communication Research Laboratory	19-Jan-98	17-Apr-99	Electromagnetic Compatibility
1998	5	Mr. Akharin Khunkitti	Tohoku University	15-Feb-98	17-Jun-99	Multimedia & Virtual Research
1998	6	Mr. Prakit Tangtisanon	JICA	29-Mar-99	03-Apr-99	Project Director
1998	7	Mr. Kongsak Anuntahirunrat	Tokyo Institute of Technology	11-Jan-99	31-Mar-99	Mixed Signal Processing
1998	8	Mr. Kittipong Mano	Tokyo Institute of Technology	11-Jan-99	31-Mar-99	Mixed Signal Processing
1998	9	Mr. Sawang Lerthirasuntorn	Tokyo Institute of Technology	11-Jan-99	31-Mar-99	Mixed Signal Processing
1998	10	Mr. Narin Atiwongsangthong	Tokyo Institute of Technology	11-Jan-99	31-Mar-99	Electronics Research Center
1998	11	Mr. Narin Tammarungwattana	Tokyo Institute of Technology	11-Jan-99	31-Mar-99	Mixed Signal Processing
1998	12	Mr. Chumnarn Punyasai	Tokyo Institute of Technology	11-Jan-99	31-Mar-99	Mixed Signal Processing
1999	1	Mr. Isara Burintramart	Tokai University	18-Jan-00	15-Jul-00	Multimedia and Virtual
1999	2	Mr. Boontee Kruatrachue	Tokyo Institute of Technology	30-May-99	16-Oct-99	Information Science
1999	3	Mr. Phichet Moungnoul	Meiji University	11-Oct-99	10-Nov-99	Mobile Communication
1999	4	Ms. Noppin Anantrasirichai	Tokai University	03-Oct-99	04-Dec-99	Signal Transmission System
1999	5	Mr. Chinnapat Nantajiwakomchai	Tokai University	20-Oct-99	22-Apr-00	Biomedical Signal and Image
1999	6	Mr. Chotipat Pornavalai	Tohoku University	29-Feb-00	30-Apr-00	Communication Network
1999	7	Mr. Worapong Tangsrirat	Tokyo Institute of Technology	29-Feb-00	27-May-00	Mixed Signal Processing
1999	8	Mr. Nontawat Chuladaycha	Tokai University	12-Mar-00	13-May-00	Control and Mechatronics

**Counterpart Training in Japan  
(JFY 1997-2001)**

JFY	No.	Researcher	C/P Organization	Duration		ReCCIT Laboratory
2000	1	Mr. Olam Wongwirat	Tokai University	04-Apr-00	30-Sep-00	Multimedia and Virtual
2000	2	Mr. Thikumporn Boonchuk	Tokai University	10-Apr-00	30-Sep-00	Satellite Communication
2000	3	Mr. Taworn Benjanarasuth	Tokai University	07-May-00	05-Aug-00	Control and Mechatronics
2000	4	Mr. Chalermpan Fongsamut	Tokyo Institute of Technology	06-Jun-00	30-Nov-00	Mixed Signal Processing
2000	5	Mr. Yuttana Kitjaidure	Tokai University	17-Sep-00	16-Nov-00	Biomedical Signal and Image
2000	6	Mr. Noppadol Maneerat	Sendai National Callage of Technology	19-Sep-00	18-Mar-01	Communication Network
2000	7	Mrs. Vimolluck Thienjew	Communication Research Laboratory	12-Nov-00	02-Dec-00	Administrative and Management Office

2001	1	Mr. Amorn Jiraseree-amornkul	Tokyo Institute of Technology	15-May-01	06-Oct-01	Mixed Signal Processing
2001	2	Mr. Sayan Paung-ngern	Meiji University	08-May-01	15-Nov-01	Mobile Communication
2001	3	Ms. Chompoonut Tengcharoem		02-Oct-01	28-Mar-02	Communication Network
2001	4	Mr. Somkiat Lerkvaranyu	Hokkaido University	03-Mar-02	31-May-02	Communication Network
2001	5	Ms. Noppin Anantrasirichai	Tokai University	07-Mar-02	30-May-02	Signal Transmission System
2001	6	Mr. Noppadol Maneerat	Sendai National Callage of Technology	28-Mar-02	01-Sep-02	Communication Network
2001	7	Mr. Pisit Boonsrimuang	Mie University	19-Mar-02	25-Aug-02	Mobile Communication
2001	8	Mr. Taworn Benjanarasuth	Tokai University	27-Feb-02	25-May-02	Control and Mechatronics

## Equipment (JFY 1997-2000)

ReCCIT Laboratory	JFY	Equipment	Amount (THB)	QTY
Mobile Communication	1997	RF Channel Simulator HP 11759C	B 3,580,000	1
	1997	Cell Site Test Set HP8921A	B 3,180,000	1
	1997	Digital Signal Generator HP ESG-D3000A	B 1,190,000	1
		<b>Total year 1997</b>	<b>B 7,950,000</b>	
	1999	W-CDMA Simulation System	B 4,385,000	1
		<b>Total year 1998</b>	<b>B 4,385,000</b>	
	2000	CDMA Mobile Station Test Set HP E8285A	B 2,498,600	1
	2000	Internal Spectrum Analyser with Tracking Generator	B 112,000	1
	2000	CDMA Mobile Station Test Software op.001	B 132,000	1
	2000	CDMA Dual Mode Station Test Software op.004	B 132,000	1
	2000	Digital and Analogue Signal Generator HP E4436B	B 908,000	1
	2000	Digital and Analogue Signal Generator op.UND	B 310,000	1
	2000	Digital and Analogue Signal Generator op.UN5	B 110,000	1
	2000	Digital and Analogue Signal Generator op.100	B 119,000	1
	2000	Digital and Analogue Signal Generator op.100	B 119,000	1
	2000	RF Signal Generator HP E4424B	B 676,000	1
	2000	Baseband Vector Signal Analyzer HP 89610A (E8491B+89606A+E1438A)	B 1,544,000	1
	2000	Baseband Vector Signal Analyzer op.AYA	B 339,000	1
		<b>Total year 2000</b>	<b>B 6,999,600</b>	
		<b>Total cost of equipment of Mobile Communication Lab.</b>	<b>B 19,334,600</b>	
Satellite Communication	1997	VHF/UHF Monitor Receiver RR502A	B 1,423,000	1
	1997	Personal Computer Digital PC 3100	B 50,000	1
	1997	Ku-Band Satellite Receiver System: DX Antenna	B 420,000	1
	1997	Rain Gauge	B 245,000	1
	1997	Sunshine Intensity Sensor	B 377,000	1
	1997	Ka-Band Antenna System	B 279,600	1
	1997	1/2-Digit MultiMeter: KEITHLEY	B 128,400	1
	1997	LR4110E Recorder(Yokogawa)	B 138,870	1
	1997	Portable Recorder(Yokogawa)	B 92,430	1
		<b>Total year 1997</b>	<b>B 3,154,300</b>	
	1998	Synthesized Sweeper HP83640B	B 2,012,610	1
	1998	HP8648B Synthesized Signal Generator	B 489,667	1
	1998	Data Acquisition HP34970A	B 44,289	1
	1998	20-Channel Armature Multiplexer Module HP34901A	B 13,546	1
		<b>Total year 1998</b>	<b>B 2,560,112</b>	
	1999	Workstation Sun Ultra 10	B 395,000	1
		<b>Total year 1999</b>	<b>B 395,000</b>	
	2000	DAQSTATION DX106-1-2/M1	B 154,000	1
	2000	Wan/Bridge/Router ZyXEL Prestige 153X	B 32,000	1
	2000	Wan/Router ZyXEL Prestige 100WH	B 17,000	1
2000	56K External V.90 Fax Modem	B 8,000	2	
2000	Personal Computer Powell Achilles P3800	B 38,000	1	
	<b>Total year 2000</b>	<b>B 249,000</b>		
	<b>Total cost of equipment of Satellite Communication Lab.</b>	<b>B 6,358,412</b>		
Wireless Communication	1997	Network Analyzer HP-85107B	B 6,963,000	1
	1997	Workstation: Sun Ultra Enterprise 2 Model 2300 & Workstation: Sun Ultra 1 Model 170 w/ 20" monitor	B 3,157,000	1
	1997	Wide-Band Amplifier HP 83050A,HP87422A	B 1,550,000	1
		<b>Total year 1997</b>	<b>B 11,670,000</b>	
	1998	APS Smart UPS 3000VA	B 54,065	1
		<b>Total year 1998</b>	<b>B 54,065</b>	
	1999	Workstation Sun Ultra 10	B 770,000	2
		<b>Total year 1999</b>	<b>B 770,000</b>	
	2000	Time Domain upgrade kit for the HP 8530A	B 506,000	1
	2000	Memory upgrade for SUN ULTRA 2	B 124,000	4
	2000	UPS: APC 1000VA	B 48,000	2
2000	RF Spectrum Analyzer HP E4403B	B 609,000	1	
	<b>Total year 2000</b>	<b>B 1,287,000</b>		
	<b>Total cost of equipment of Wireless Communication Lab.</b>	<b>B 13,781,065</b>		

ReCCIT Laboratory	JFY	Equipment	Amount (THB)	QTY	
Signal Transmission System	1999	RF Board and DSP Designer (2User)	B 3,461,130	1	
	1999	Video Measurement Set(TEKTRONIX VM700T)	B 2,111,600	1	
	1999	Arbitrary Waveform Gen.(TEKTRONIX AWG2021)	B 1,080,300	1	
	1999	Synthesized CW Generator(HP83711B)	B 896,640	1	
	1999	Libert UPS 1000VA	B 120,000	6	
	1999	Digital 8 Camera: SONY	B 44,400	1	
	1999	Network Laser Printer HP Jet2100	B 33,600	1	
	1999	WE7000 Precision Data Acquisition(Yokogawa)	B 448,600	1	
	1999	Spectrum Analyzer(HP-E4403B)	B 410,880	1	
	1999	Video Test Signal Generator(TEKTRONIX TSG271)	B 393,800	1	
	1999	Step Attenuater Set (HP 8495B + HP 9494B)	B 373,000	4	
	1999	Broadband Noise Source(HP346C)	B 92,000	1	
	1999	Signal Level Meter (TEKTRONIX)	B 67,600	1	
	1999	Interface Card (HP8241C,HP10833B)	B 50,650	1	
	1999	SMA Coaxial Fixed Termination(TEKTRONIX))	B 39,800	1	
	1999	PC: ATEC Premier (pentium III 500MHz w/NEC	B 450,000	5	
	1999	Color Inkjet Printer HP-1120C	B 20,400	1	
	1999	Black Laserjet Printer HP-1100	B 19,000	1	
			<b>Total year 1999</b>	<b>B 10,113,400</b>	
	2000	Portable Spectrum Analyzer: Agilent 8563EC	B 1,749,000	1	
	2000	Noise Figure Test 8971C op.001	B 2,497,000	1	
	2000	Synthesized Swept-Signal Generator: Agilent 83630B	B 2,256,000	1	
	2000	Double Ridged Wave GuideHorn Antenna: Agilent	B 300,000	2	
	2000	High Performance Power Supply: Agilent 6633B	B 156,000	2	
	2000	UPS: APC 3000VA	B 57,000	1	
			<b>Total year 2000</b>	<b>B 7,015,000</b>	
			<b>Total cost of equipment of Signal Transmission System Lab.</b>	<b>B 17,128,400</b>	
Communication Networks	1997	Unix Server HP J210XC Basic System	B 1,582,050	1	
	1997	Workstation Unix Sun Ultra2 2170	B 1,005,900	1	
	1997	UPS APS Smart 2200VA	B 113,000	2	
	1997	HP Vectra VL 5/166	B 55,000	1	
	1997	Laser Printer HP Laser Jet 6MP	B 35,500	1	
	1997	X-Terminal HP-EnvizexII	B 635,640	2	
	1997	Software C.C,++Compiler HP Unix	B 163,710	1	
		Intel Express 10/100 stackable Hub	B 245,000		
		<b>Total year 1997</b>	<b>B 3,835,800</b>		
	1998	WorkstationHP Kayak XW and Sony WEGA	B 808,000	2	
	1998	ATEC Premier	B 79,640	2	
	1998	HP Laser Jet Printer 2100C	B 30,785	1	
	1998	HP Jetdirect Card	B 22,520	2	
	1998	HP Scanjet 6200C	B 16,190	1	
		<b>Total year 1998</b>	<b>B 957,135</b>		
	1999	Opnet Modeler Software	B 2,498,700	1	
		<b>Total year 1999</b>	<b>B 2,498,700</b>		
	2000	Personal Computer Powell Achilles P3933	B 144,000	3	
		<b>Total year 2000</b>	<b>B 144,000</b>		
	<b>Total cost of equipment of Communication Networks Lab.</b>	<b>B 7,435,635</b>			
Information Science	1997	Digital Video Camera: SONY Handycam Vision DCR-PC10E PAV	B 181,000	2	
	1997	Compaq Presario 4830	B 83,900	1	
	1997	Triplops Stereo Vision System	B 174,330	1	
	1997	LPA Prolog Compiler for Win.95/NT	B 143,000	1	
	1997	PC ATEC	B 125,000	2	
	1997	HP Laserjet Printer 5L	B 24,500	1	
	1997	Scanner: HP Scanjet 6100C	B 25,600	1	
	1997	Printer: HP Diskjet 1000C	B 15,600	1	
		<b>Total year 1997</b>	<b>B 772,930</b>		
	1998	Software for speech recognizer	B 550,000	1	
		<b>Total year 1998</b>	<b>B 550,000</b>		
	2000	Personal Computer Powell Achilles P3933	B 48,000	1	
	<b>Total</b>	<b>B 48,000</b>			
	<b>Total cost of equipment of Information Science Lab.</b>	<b>B 1,370,930</b>			

ReCCIT Laboratory	JFY	Equipment	Amount (THB)	QTY	
Multimedia & Virtual	1997	Silicon Graphics Workstation O2	B 1,396,646	2	
	1997	Softimage Extreme FX3D for SGI ver 3.7	B 1,228,367	2	
	1997	Phantom Interface	B 1,757,759	2	
	1997	Cyber Grove CG-22020-R	B 1,682,635	2	
	1997	ProDev C++Bundle for C	B 600,490	2	
	1997	CrystalEyes 2 Eyeware	B 172,046	2	
	1997	Worldtool Kit	B 810,880	2	
	1997	Isotrak II	B 281,908	2	
	1997	CyberEye CE-200W	B 195,118	2	
	1997	Simsript II.5	B 90,500	1	
			<b>Total year 1997</b>	<b>B 8,216,349</b>	
	1998	APS Smart UPS 2200VA	B 37,795	1	
			<b>Total year 1998</b>	<b>B 37,795</b>	
	2000	World Toolkit Development License for Windows NT	B 678,000	1	
	2000	Upgrade World Toolkit for SGI (per license)	B 570,000	2	
	2000	CyberGlove System (left hand)	B 959,000	1	
	2000	IRIX 6.5 S/W Upgrade for SGI Workstation	B 66,000	2	
	2000	Ethernet Switch 3 COM Super Stack3 3300	B 44,000	1	
	2000	Personal Computer Powell Achilles P3933	B 270,000	3	
	2000	UPS: APC 2200VA	B 38,000	1	
			<b>Total year 2000</b>	<b>B 2,625,000</b>	
			<b>Total cost of equipment of Multimedia &amp; Virtual Lab.</b>	<b>B 10,879,144</b>	
	Communication Circuit Design	1998	MS4662A Network Analyzer	B 1,593,180	1
1998		MS2663C Spectrum Analyzer	B 799,947	1	
1998		MS2661B Spectrum Analyzer	B 549,433	1	
1998		MG3601A Signal Generator	B 313,053	1	
1998		MG3641A Synthesized Signal Generator	B 274,893	1	
			<b>Total year 1998</b>	<b>B 3,530,506</b>	
2000		Work Station: Hewlett Packard Kayak XM 600	B 1,098,000	6	
		<b>Total</b>	<b>B 1,098,000</b>		
		<b>Total cost of equipment of Communication Circuit Design Lab.</b>	<b>B 5,726,506</b>		
Mixed Signal Processing	1997	Cadence IC Design Software	B 31,660,420	1	
	1997	Sun Ultra Enterprise 4000 Server	B 4,102,206	1	
	1997	Synopsys Software	B 4,578,400	1	
	1997	Network/Spectrum/Impedance Analyzer	B 1,720,400	1	
	1997	Digital Strage Oscilloscope	B 370,700	1	
	1997	Signal Generator HP-8648A	B 317,900	1	
	1997	50-OHM Type-N Calibration Kit	B 92,400	1	
			<b>Total year 1997</b>	<b>B 42,842,426</b>	
	1998	APS Smart UPS 3000VA	B 108,130	2	
	1998	Sun StroEdge Multipack 18.2GB	B 158,045	1	
	1998	Xilinx Primary Package	B 133,445	1	
	1998	Xilinx Alliance License	B 89,152	4	
	1998	Sun CD 12Speed Unipack	B 67,265	1	
	1998	FPGA Starter Kit	B 18,325	5	
	1998	X-Checker Cable	B 14,136	1	
			<b>Total year 1998</b>	<b>B 588,498</b>	
	1999	Work Station: Hewlett Packard Kayak XM 600	B 1,360,000	8	
	1999	CD-RW external Yamaha	B 19,800	1	
			<b>Total year 1999</b>	<b>B 1,379,800</b>	
		<b>Total cost of equipment of Mixed Signal Processing Lab.</b>	<b>B 44,236,362</b>		

ReCCIT Laboratory	JFY	Equipment	Amount (THB)	QTY	
Biomedical Signal & Image Processing	1997	Unix Sun Ultra Enterprise 2-2300	B 1,240,000	1	
	1997	Color Printer: Kodak 8650 PS	B 495,627	1	
	1997	ATEC Premier Pro	B 384,720	3	
	1997	Read/Write CD-ROM	B 73,800	2	
	1997	Laser Printer HP Laser Jet 6MP	B 69,000	2	
	1997	Monitor 21"(NEC Multi syncE1100)	B 58,720	1	
		Color Scanner: HP Scanjet 6100C	B 27,500	1	
	1997	Film Scanner(Nikon LS1000)	B 54,700	1	
	1997	Sun Ultra Model 170E Creator	B 1,692,000	4	
		Hub: 3com TP 100	B 50,260		
		Ethernet Interface card: 3com	B 12,600		
		<b>Total year 1997</b>	<b>B 4,158,927</b>		
	1998	APS Smart UPS 3000VA	B 108,130	2	
	1998	Fujifilm Digital Camera DS-300	B 89,280	1	
	1998	Nonlinear Digital Video Editing System	B 51,835	1	
	1998	KODAK 8650 CP Paper	B 31,413	3	
	1998	WACOM Digitizer	B 14,975	1	
	1998	KODAK 8650 CP XLSPaper	B 3,770	1	
		<b>Total year 1998</b>	<b>B 299,403</b>		
	1999	LCD Monitor: NEC Multisync LCD 2010	B 462,400	2	
	1999	NEC MultisyncE1100	B 450,000	5	
	1999	Workstation HP Kayak XM600	B 199,500	1	
	1999	ATEC Premier Pro	B 264,800	4	
	1999	Video Capture CARD NIC	B 56,400	1	
		<b>Total year 1999</b>	<b>B 1,433,100</b>		
		<b>Total cost of equipment of Biomedical Signal &amp; Image Processing Lab.</b>	<b>B 5,607,002</b>		
	Electromagnetic Compatibility	1997	Network Analyzer (20GHz) [HP 83621B, HP8514B, HP	B 4,400,000	1
		1997	Digital RLC Meter: HP 4286A	B 1,300,000	1
1997		Digital Storage Oscilloscope: HP	B 1,200,000	1	
1997		Digital Frequency Counter: HP 53132A	B 200,200	1	
1997		Current Probe: HP 1146A	B 18,700	1	
		Digital Pulse Generator: HP 81110A, HP 81111A, HP E3631A	B 616,000		
		<b>Total year 1997</b>	<b>B 7,734,900</b>		
1998		RF Noise Analyzer NIS-26723(I)&(II) & Notebook PC TOSHIBA TECRA 8000	B 7,283,333	1	
		<b>Total year 1998</b>	<b>B 7,283,333</b>		
2000		EMC Precompliance Systems: Agilent 84115EM (Agilent E7401A , etc.)	B 1,005,000	1	
2000		EMC Compact Test Systems: Schaffner BEST EMC-1	B 862,000	1	
2000		Magnetic Field Coil: Schaffner INA702	B 191,000	1	
2000		Power Quality Analyzer FLUKE Model 43	B 115,000	1	
2000		UPS: APC 2200VA	B 38,000	1	
2000		Personal Computer Powell Achilles P3733	B 141,000	3	
2000		Personal Computer Powell Achilles P3933	B 144,000	3	
2000		Laser Printer HP LaserJet 1100	B 17,000	1	
2000		Color Scanner HP 5300C	B 13,000	1	
2000		External CD-RW / HP 8230e	B 15,000	1	
		<b>Total</b>	<b>B 2,541,000</b>		
	<b>Total cost of equipment of Electromagnetic Compatibility Lab.</b>	<b>B 17,559,233</b>			

ReCCIT Laboratory	JFY	Equipment	Amount (THB)	QTY	
Control and Mechatronics	1997	MATLAB For 5 users	B 2,763,396	1	
	1997	Digital Personal Workstation 433au	B 3,070,289	3	
	1997	Direct Drive Manipulator TSB003A	B 1,217,287	1	
	1997	Digital Alpha Server 800 5/400 Unix	B 1,181,350	1	
	1997	Fortran 90 For Unix System	B 267,007	1	
	1997	MATLAB For PC Base	B 340,671	1	
			Test Program(software) for Robot: Tokyo Electronics Systems	B 521,791	
			<b>Total year 1997</b>	<b>B 9,361,791</b>	
	1998	Digital Oscilloscope	B 1,717,000	1	
	1998	Pentium II 350MHz ATEC PC	B 316,740	6	
	1998	HP Laser Printer 4000NT	B 131,940	2	
	1998	File-server ATEC NEXUS500	B 91,770	1	
	1998	MATLAB 1 User	B 71,625	1	
	1998	Digital Extended math Library	B 46,868	1	
	1998	Toolbox	B 42,576	1	
	1998	IMSL C Numerical Library	B 38,612	1	
	1998	Data Acquisition System	B 30,578	1	
	1998	Compex Hub 16ports	B 6,495	1	
	1998	Modem Acer56K	B 3,040	1	
	1998	APS Smart UPS 3000VA	B 54,065	1	
	1998	APS Smart UPS 2200VA	B 37,795		
			<b>Total year 1998</b>	<b>B 2,589,104</b>	
	2000	MS Windows 2000 Server Full (5 clients) AE	B 20,000	1	
	2000	MS Windows 2000 Client Access License MLP 5 AE	B 2,400	1	
	2000	MS Windows 2000 Professional CVPUPAE CD	B 8,000	1	
	2000	MS Office 2000 Professional AE CD	B 10,000	1	
	2000	Low-Cost Multifunction I/O Board	B 52,000	1	
	2000	68-Conductor Ribbon Cable 1m	B 7,000	1	
	2000	Low-Cost 68-pin connector block for 68-pin products	B 9,000	1	
	2000	Pocket Tachometer	B 35,000	1	
	2000	Laboratory DC Power Supply ANALAB APS-1	B 24,000	2	
	2000	Personal Computer Powell Adonis	B 78,000	2	
			<b>Total year 2000</b>	<b>B 245,400</b>	
		<b>Total cost of equipment of Control and Mechatronics Lab.</b>	<b>B 12,196,295</b>		
Electro-Mechanical Engineering	1998	HP Unix Workstation	B 541,965	1	
	1998	Soft Library for HP Unix	B 311,930	1	
			<b>Total year 1998</b>	<b>B 853,895</b>	
	1999	Laser Vibrometer System (3 sets)	B 9,108,847	1	
	1999	Clean Booth	B 1,283,112	1	
	1999	Air Spindle	B 980,440	1	
	1999	Humidity Generator	B 715,753	1	
	1999	Vibration Isolating Table w/ Compressor	B 557,012	1	
	1999	Piezo Driver	B 233,151	1	
	1999	Humidity Meter	B 116,080	1	
	1999	Air Cleaning Unit	B 101,339	1	
	1999	Function Generator	B 74,410	1	
	1999	Air Compressor	B 66,331	1	
	1999	Piezoelectric Actuator	B 54,213	3	
	1999	Transformer	B 41,103	4	
	1999	Piezoelectric Actuator	B 37,205	3	
		<b>Total year 1999</b>	<b>B 4,260,149</b>		
		<b>Total cost of equipment of Electro-Mechanical Engineering Lab.</b>	<b>B 5,114,044</b>		
Microelectronic Devices	1997	Cadence IC Design Software	B 8,159,000	1	
	1997	Unix Sun Enterprise 3000 Server	B 2,230,562	1	
	1997	Star-Hspice Software	B 1,853,100	1	
	1997	HP Design-Jet 450 Color Printer	B 95,000	1	
			<b>Total year 1997</b>	<b>B 12,337,662</b>	
	1998	Sun Unix Terminal Ultra 10	B 1,382,680	4	
	1998	APS Smart UPS 3000VA	B 54,065	1	
	1998	3Com Hub	B 29,320	1	
		<b>Total</b>	<b>B 1,466,065</b>		
		<b>Total cost of equipment of Microelectronic Devices R&amp;D Lab.</b>	<b>B 13,803,727</b>		

ReCCIT Laboratory	JFY	Equipment	Amount (THB)	QTY	
Common Use	1997	HP Vectra VL 5/166	B 420,000	8	
	1997	Mitsubishi Pajero 4WD,3.0.5door	B 1,064,000	1	
	1997	Toyota Hi-Ace Gasoline 5speed	B 659,350	1	
	1997	Copy Machine Canon GP-216	B 438,500	1	
	1997	Color LCD Projector Sharp XG-NV0	B 210,000	1	
	1997	Laser Printer HP Laser Jet 6MP	B 68,000	2	
	1997	Copy Machine Canon GP-215	B 438,500	1	
	1997	Binding Machine: LAMIREL	B 9,000	1	
			<b>Total year 1997</b>	<b>B 3,307,350</b>	
	1998	APS Smart UPS 3000VA	B 54,065	2	
	1998	APS Smart UPS 2200VA	B 188,975	6	
	1998	UPS Power Link: Dimon 500VA	B 43,360	16	
	1998	APS Smart UPS 2200VA	B 37,795	1	
	1998	IEEE,IEE,CD Library System STDS/IEEE 7set-43 discs, PC: ACER Power 6100 (Pentium III 450MHz) CD-Changer: Pioneer 6 disc 24x, HP Lasejet 2100M printer	B 2,071,310	1	
			<b>Total year 1998</b>	<b>2,395,505</b>	
	1999	Work Station: Hewlett Packard Kayak XM 600	B 170,000	1	
			<b>Total year 1999</b>	<b>B 170,000</b>	
	2000	Color Laser Printer HP Color Laserjet 4550N	B 103,000	1	
	2000	Personal Computer Powell Achilles P3933	B 48,000	1	
	2000	Notebook Computer ATEC Vegus 665	B 91,000	1	
	2000	Personal Computer Powell Achilles P3933	B 96,000	2	
			<b>Total year 2000</b>	<b>B 508,000</b>	
			<b>Total cost of equipment of Common Use</b>	<b>B 6,380,855</b>	

## Accomplishment in each laboratory

Laboratory	Graduates		Publications			
	Doctor	Master	Conference		Journal	
			International	Local	International	Local
1 Mobile Communication Laboratory	1	9	24	9	1	11(11)
2 Satellite Communication Laboratory		6	38	8	0	3(3)
3 Wireless Communication Laboratory	3	11	63	25	7(2)	11(8)
4 Signal Transmission system Laboratory		4	30	5	1(1)	4(3)
5 Communication Network Laboratory		5	26	8	0	4(4)
6 Information Science Laboratory		12	28	14	0	0
7 Multimedia and Virtual Laboratory		4	27	1	1(1)	3(3)
8 Communication Circuit Design Laboratory		31	69	2	2	78(73)
9 Mixed Signal Processing Laboratory	1*	6	26	16	7	1(1)
10 Biomedical Signal and Image Processing Laboratory		9	29	14	2	3(3)
11 Electromagnetic Compatibility Laboratory		1	12	5	0	2(1)
12 Control and Mechatronics Laboratory		9	37	14	3(2)	2(2)
13 Electro-Mechanical Engineering Laboratory		6	10	16	0	12(12)
14 Microelectronic Devices R&D Laboratory		2	17	6	1	1(1)
Total	5	115	436	143	25(6)	135(125)

\* degree acquired in 1997

\*The number in the parenthesis means the number of paper published in Academic Bulletin.

## Publication List of the Labs: Mobile Communication

No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				
1	<i>Active Card Access Telephone</i> B. Pongprasert, M.Sukkasem, and T.Paungma The 39th Kasetsart University Annual Conference, February 5-7, 2001 Bangkok, Thailand		1			1			
2	<i>Fault Location Display System for Optical cable Network</i> P. Moungnoul, T. Paungma and M. Sukkasem 25th AIC Conference (Changhi), Doc. No.88, 23-27 April 2001, Changhi, China	1					1		
3	<i>Signal Strength Display System for PCT Service Area</i> P. Phasugkit, P. Moungnoul and S. Junapiya Ladkrabang Engineering Journal, Vol.3 pp.77-81, September 2001, Bangkok Thailand			1				1	
4	<i>Base Station Installation Design for Fututre Demand of Public Land Mobile Telecommunication Systems</i> P. Moungnoul, S. Junapiya and P. Ananwarapong Ladkrabang Engineering Journal, Vol.3 pp.77-81, September 2001, Bangkok Thailand			1				1	
5	<i>Study of Micro Cell GSM Base Station Propagation Path Loss in Urban Area Base on Average of standard Deviation and Corner Attenuation</i> P. Moungnoul, and S. Junapiya, P. Ananwarapong Ladkrabang Engineering Journal, Vol.3 pp.99-104, September 2001, Bangkok Thailand			1				1	
6	<i>Average BER Analysis of DS-CDMA Cellular System over Rayleigh Multipath Fading</i> T. Sungkramanut, T. Paungma, J. Phetprasert and P. Ananwarapong Ladkrabang Engineering Journal, Vol.3 pp.105-110, September 2001, Bangkok Thailand			1				1	
7	<i>Novel Internet Application Service by Mobile Phone</i> P. Boonsrimuang, T. Paungma and M. Sukkasem 26th AIC Conference (Ha Noi), Doc. No.53, 5-9 November 2001 Hanoi, Vietnam	1							1
8	<i>Erlang capacity of a cellular CDMA System with imperfect power control over a raleigh fading channel</i> P. Moungnoul, N. Narongrat, S. Junnaoiva and T. Paungma ISCIT 2001, TMA1-03, pp.195-198, 14-16 November 2001, Chiang Mai, Thailand	1							1
9	<i>Utilizing the neural network model for traffic prediction at heavily loaded area of GSM System</i> Tawil Paungma, Manoon Sukkasem, Winai Sangkhawijit and Phichet Moungnoul, The 2nd Conference on Information Technology Asia (CITA'01), pp. 280-287, 17-19 October 2001, Kuching, Sarawak, Malaysia	1							1
10	<i>Channel capacity optimization of GSM Basetransceiver station by least square method</i> Tawil Paungma, Manoon Sukkasem, Attasit Innoy and Phichet Moungnoul, The 2nd Conference on Information Technology Asia (CITA'01), pp. 361-372, 17-19 October 2001, Kuching, Sarawak, Malaysia	1							1
11	<i>Utilizing the Neural Network Model for Traffic Prediction to Improve the GOS of GSM System</i> Tawil Paungma, Winai Sangkhawijit, Phichet Moungnoul and Sutuch Pingsakulchai The 24th Electrical Engineering Conference, pp. 758-763, 22-23 November 2001, Ladkrabang, Bangkok, Thailand		1						1
12	<i>A Study for Cell Performance Evaluation for WCDMA Mobile Radio</i> T. Paungma, T. Ikegami, S. Puangngoen and T. Pattanatadapong The 24th Electrical Engineering Conference, pp. 834-839, 22-23 November 2001, Ladkrabang, Bangkok, Thailand		1						1
13	<i>The layout design of wireless cell station system for indoor and outdoor area coverage</i> Tawil Paungma, Pisit Boonsrimuang and Sutuch Pingsakulchai The 24th Electrical Engineering Conference, pp. 857-861, 22-23 November 2001, Ladkrabang, Bangkok, Thailand		1						1
14	<i>Traffic Condition Acquisition and Monitoring via Mobile Phone</i> Tawil Paungma, Pisit Boonsrimuang and Chuchat Putrakul The 24th Electrical Engineering Conference, pp. 886-890, 22-23 November 2001, Ladkrabang, Bangkok, Thailand		1						1
15	<i>Wireless Communications in the Future</i> Tawil Paungma The 24th Electrical Engineering Conference, pp. I-VI November 2001, Ladkrabang, Bangkok, Thailand		1						1
<b>Total Year 2001</b>		<b>5</b>	<b>6</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>9</b>
No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				

**Publication List of the Labs: Mobile Communication**

No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				
1	<b>Analysis Data Message in ISDN User Part of the ISDN</b> C. Watthanaphan, P. Moungnoul and M. Sukkasem Ladkrabang Engineering Journal, Vol. 16, No. 2, pp. 1-5, June 2000.			/			1		
2	<b>Telephone Subscriber Outgoing Call Control System for PABX</b> S. Disapirom, P. Moungnoul and T. Paungma Ladkrabang Engineering Journal, vol. 16, No. 2, pp. 6-11, June 2000.			/			1		
3	<b>Study of Origination Traffic for Adaptive Trunk Circuit between Local Exchange and Tandem Exchange</b> C. Putrakul, W. Sangkahawijit, P. Moungnoul and T. Paungma Ladkrabang Engineering Journal, Vol. 16, No. 2, pp. 12-17, June 2000.			/			1		
4	<b>Improvement of AMPS Mobile Telephone System Base Station by Least Square Method</b> A. Innoy, P. Moungnoul and T. Paungma Ladkrabang Engineering Journal, Vol. 16, No. 2, pp. 18-23, June 2000.			/			1		
5	<b>Voltage Controlled Output offset 57 MHz RC Oscillator</b> W. Sangkahawijit, P. Moungnoul, T. Paungma and A. Monprapatsorn Ladkrabang Engineering Journal, Vol. 16, No. 2, pp. 53-58, June 2000.			/			1		
6	<b>Master-Slave Microprocessor Control LED Dot Matrix Display</b> P. Samanrak, P. Moungnoul and T. Paungma Ladkrabang Engineering Journal, Vol. 16, No. 2, June 2000.			/			1		
7	<b>Solving Fading Effect in the PCT System by Utilizing Fading Factor in Loss Equation.</b> N. Yenkaï, C. Leangwongsun, M. Sukkasem and T. Paungma 2000 Symposium on Theory and Applications of Communications and Information Technology (TACIT 2000), August 24-25, 2000, KMITL, Bangkok.	/						1	
8	<b>Improvement of Base Station in AMPS Mobile Telephone System by Least Square Method</b> P. Moungnoul, T. Pattanadapong, M. Sukkasem and T. Paungma The 3rd International Symposium on Wireless Personal Multimedia Communications (WPMC 2000), November 12-15, 2000, Bangkok, Thailand.	/							1
9	<b>Development of the Fault Location Display System in Optical Cable Network</b> R. Puangdokmai, P. Moungnoul, M. Sukkasem and T. Paungma Ladkrabang Engineering Journal, Vol. 17, No. 4, Dec. 2000.			/					1
10	<b>Total Bandwidth Optimization Based on ATM Management System</b> C. Netnut, P. Moungnoul, K. Deihan and T. Paungma Computer networking and multimedia (COMNAM-2000), 21-22 Dec., 2000, INDIA.	/							1
11	<b>Application of Queuing Theory For ATM Switch Bandwidth Management</b> P. Moungnoul, M. Sukkasem and T. Paungma Computer networking and multimedia (COMNAM-2000), 21-22 Dec., 2000, INDIA.	/							1
12	<b>ATM Switch Bandwidth Management Based on Queuing Theory</b> P. Moungnoul, K. Deihan, M. Sukkasem and T. Paungma The 24th Asian Info-communications Council Conference (AIC 2000), 6-10 Nov. 2000, Seoul, Korea	/							1
13	<b>Total Bandwidth Optimization Based on ATM Management System</b> P. Moungnoul, K. Deihan, M. Sukkasem and T. Paungma The 24th Asian Info-communications Council Conference (AIC 2000), 6-10 Nov. 2000, Seoul, Korea	/							1
14	<b>Analysis of Signal Fading Effect in the PCT System by Utilizing Fading in Loss Equation</b> T. Pattanadapong, P. Boonsrimuang, M. Sukkasem and T. Paungma The 1st Workshop on ITS Telecommunication (ITST 2000), 26-27 Oct. 2000, Yokosuka Research Park (YRP), Kanakawa, Japan	/							1
<b>Total Year 2000</b>		<b>7</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>6</b>	<b>1</b>	<b>7</b>
No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				

**Publication List of the Labs: Mobile Communication**

No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				
1	<i>Personal Communication Telephone New system for digital wireless communication in Thailand</i> P. Moungnoul, M. Sukkasem and T. Paungma IEICE Transactions on Electronics, Tokyo, vol.E82-C, no.7, July 1999			1		1			
2	<i>Prediction Model for Intra Building cell satations design for Personal Communication Telephone (PCT) System in the 1.9 GHz band</i> T. Paungma and M. Sukkasem Asian ISDN Concl (AIC)#22nd, Tokvo 15-18 June, 1999	1					1		
3	<i>Cell Design for Indoor Cell Station in Personal Communication Telephone (PCT) System</i> N. Yenkaï, P.Moungnoul, P. Tangtisanon and T. Paungma International Conference on Telecommunications (ICT), Cheju, Korea 15-18 June, 1999	1					1		
5	<i>Prediction Model for Intra building Cell Station Design for Personal Communication Telephone(PCT)System in the 1.9 GHz band</i> S. Puangngoen, M. Sukkasem, and T. Paungma 999 IEEE International Workshop on Intelligent Signal Processing and Communication Systems (ISPACS'99), Phuket Thailand, 8-10 December 1999	1							1
6	<i>Intra building cell Stations Placement Prediction Model for Personal Communication Telephone(PCT) System in 1.9 GHzband</i> T. Paungma, P. Boonsrimuang and P. Moungnoul 1999 IEEE International Workshop on Intelligent Signal Processing and Communication Systems (ISPACS'99), Phuket Thailand, 8-10 December 1999	1							1
7	<i>1.9 GHz Indoor Model Prediction for Personal Communication Telephone (PCT) System in the band</i> B. Pongprasert, M. Sukkasem and T. Paungma Thai-Japan Joint Symposium on Microwaves 1999(TJMW'99), Phattava Thailand, 20-23 September 1999	1							1
8	<i>Automatic Traffic Light Controller using Microcontroller</i> N. Kaowhog, P. Boonsrimuang, P. Moungnoul and T. Paungma EECON#22, Kasetsart University, Thailand, 2-3 December 1999		1						1
<b>Total Year 1999</b>		<b>5</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>4</b>
No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				
1	<i>Personal Communication Telephone new system for digital wireless communication in Thailand</i> P. Moungnoul, M. Sukasem, T. Paungma The 1998 Asia-PacificMicrowave Conference (APMC'98), December, 1998	1					1		
2	<i>Test results for cell coverage area in Personal Communication Telephone System in Thailand</i> P. Moungnoul, M. Sukasem, T. Paungma The 1998 Asia-PacificMicrowave Conference (APMC'98), December, 1998	1					1		
3	<i>Cell Station Design for Persoanl Communication Telephone</i> P. Moungnoul, P. Tangtisanon, T. Paungma ISPACS'98, November, 1998, Vol. 2, p. 645-649, Melbourne, Australia	1					1		
4	<i>Persoanl Communication Telephone New system for digital wireless communication Thailand</i> P. Moungnoul, M. Sukasem, T. Paungma 1998 Asia-Pacific Microwave Conference (APMC'98), December 9-11, 1998, Yokohama, Japan	1							1
5	<i>Cell design for public mode service in Personal Communication Telephone (PCT) System</i> T. Pattanadapong, P. Boonseamuang, T. Paungma, M. Sukkasem The 21th Electrical Engineering Conference, November 12-13, 1998, Thailand		1						1
6	<i>Cell design for indoor cell station in Personal Communication Telephone (PCT) Systems</i> T. Tunhongmassakul, E. Puttawong, T. Paungma, M. Sukkasem The 21th Electrical Engineering Conference, November 12-13, 1998, Thailand		1						1
7	<i>PCT -The New Service for Digital Wireless Communication in Thailand</i> P. Moungnoul, P. Tangtisanon and T. Paungma The 16th International Telecommunications Symposium (ITS'98) Vol. 11, pp. 51-55, September 15-17, 1998, Taipei, Taiwan.	1						1	
8	<i>The computation and experimental result for cell coverage regions for a PCT system</i> P. Moungnoul, N. Namuang, M. Sukkasem, and T. Paungma The 16th International Telecommunications Symposium (ITS'98) Vol. 11, pp. 57-62, September 15-17, 1998, Taipei, Taiwan.	1						1	
<b>Total Year 1998</b>		<b>6</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>3</b>
No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				

**Publication List of the Labs: Satellite Communication**

No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				
1	<i>Ku-band Scintillation Characteristics in Thailand</i> Thikumporn Boonchuck, Narong Hemmakorn, Prakrit Tangtisanon, Yoshiaki Moriya PIERS'01* Cosmosquare International Education and Training Center, Osaka, Japan July 18-22 2001	1						1	
2	<i>Rain and Rain Attenuation Characteristics in Unique High Rainfall Region in Tropical Zone</i> Prasit Nakonrat, Padisan Phudpong, Prakrit Tangtisanon, Narong Hemmakorn PIERS'01 Cosmosquare International Education and Training Center, Osaka, Japan July 18-22 2001	1						1	
3	<i>Statistical Analysis of S-Band satellite signal effected by ionospheric scintillation</i> Khajitpan Makaratat, Adit Decharat, Narong Hemmakorn PIERS'01 Cosmosquare International Education and Training Center, Osaka, Japan July 18-22 2001	1						1	
4	<i>Result of Ku-band Satellite Signal Propagation Experiments under Post-PARTNERS Project</i> Thikumporn Boonchuck, Narong Hemmakorn, Kiyoshi Igarashi, Hisamitsu Minakoshi, Masabumi Kawamura, Yoshiaki Moriya, Takao Minode AP-RASC'01* Chuo University, Tokyo, Japan 1-5 August 2001	1						1	
5	<i>Rain Rate Estimating using Wind Profiler at KMITL</i> Chaiwat Somboonlarp, Nipa Leelaruij, Narong Hemmakorn, Yuichi Ohno AP-RASC'01 Chuo University, Tokyo, Japan 1-5 August 2001	1						1	
6	<i>Experimental and Theoretical Statistics of Ionospheric Scintillation in Equatorial Zone</i> Khajitpan Makaratat, Adit Decharat, Narong Hemmakorn, Kiyoshi Igarashi, Hisamitsu Minakoshi AP-RASC'01 Chuo University, Tokyo, Japan 1-5 August 2001	1						1	
7	<i>Rain Fade Duration in KU-Band Satellite Signal</i> Kridikorn Prayotvanich, Natth Junkrob, Narong Hemmakorn ISCIT 2001*, Chiang Mai Orchid Hotel, Chiang Mai, Thailand 14-16 November 2001	1							1
8	<i>The Predictability of Vertical TEC Using Artificial Neural Networks on Bangkok</i> Krittaya Nakprasit, Narong Hemmakorn ISCIT 2001, Chiang Mai Orchid Hotel, Chiang Mai, Thailand 14-16 November 2001	1							1
9	<i>Study on Relation of Cross-Polarization Variation to The Earth Station Location Using on Thaicom-3 Satellite</i> Banphot Clearpaungpith, Narong Hemmakorn ISCIT 2001, Chiang Mai Orchid Hotel, Chiang Mai, Thailand 14-16 November 2001	1							1
10	<i>The Characteristics of C-Band Scintillation at Low Elevation Propagation</i> Sompong Sukkaewthanom, Nipha Leelaruij, Narong Hemmakorn ISCIT 2001, Chiang Mai Orchid Hotel, Chiang Mai, Thailand 14-16 November 2001	1							1
11	<i>Performance of DS-CDMA system using MRC diversity with Channel Estimation Errors</i> Wiren Rattanakoeh, Sutthichai Noppanakeepong ISCIT 2001, Chiang Mai Orchid Hotel, Chiang Mai, Thailand 14-16 November 2001	1							1
<b>Total Year 2001</b>		<b>11</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>5</b>
No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				

**Publication List of the Labs: Satellite Communication**

No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				
1	<b>Wind Profiler Observation at KMITL</b> N. Leelarujii, C.Somboonlarp N. Hemmakorn, A. Manyanon, and Y. Ohno International Workshop on Radar and Lidar Remote Sensing Technology in Asia, 2 February 2000, Tokyo, Japan	1				1			
2	<b>Rain Attenuation Charecteristic in Southeast Asia</b> N. Hemmakorn, T. Boonchuk, K.Takaki, Y.Moriya, T. Otsuka and M.Kawamura ITE Technical Report Vol. 24 No. 14, Japan	1				1			
3	<b>Model Calculation of TV Received Signal by Aircraft Scattered Wave</b> K. Takaki, Y. Moriya, S. Ikeda, H. Sakurada, N.Leelarujii, N.Hemmakorn ITE Technical Report Vol. 24 No. 13, Japan	1				1			
4	<b>Voice and data transmission over frame relay via Satellite SCPC system</b> Kamol Pho-gnarm, Narong Hemmakorn First National Symposium on Graduate Research, 10-11 June 2000, Chiangmai University.		1				1		
5	<b>Downlink Availability of Thaicom 3 Satellite due to Rain Fading at Klongyai on Ground Station</b> Aditep Chaisang, Narong Hemmakorn TENCON 2000, 25-27 September 2000, Kuala Lumpur	1					1		
6	<b>Ku-band Satellite Signal Propagation Experiments of Post-PARTNERS Project</b> Thikumporn Boonchuk, Narong Hemmakorn, Kiyoshi Igarashi, Takeuki Ojima The 2000 International Symposium on Antennas and Propagation, . 21-25 August 2000, Fukuoka, Japan. pp. 1223-1226	1							1
7	<b>1.5 GHz Scintillation Observation and Nighttime Total Ionospheric Electron Content Enhancement in Low Latitude</b> Onanong Petnim, Narong Hemmakorn, Kiyoshi Igarasi The 2000 International Symposium on Antennas and Propagation, . 21-25 August 2000, Fukuoka, Japan. pp 1251-1254	1							1
8	<b>Wave propagation experiment at Ka-ba</b> Ekavit Nukfron, Adit Decharat, Tikumporn Boonchank, Narong Hemmakorn The Third International Symposium on Wireless Personal Multimedia Communications, pp 554-557, 12-15 November 2000 The Imperial Queen's Park Hotel, Bangkok	1							1



**Publication List of the Labs: Satellite Communication**

No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				
1	<i>Day-to-Day and Seasonal Variability of Ionospheric Total Electron Content Observation in Thailand.</i> S.Kitsadawanich, O.Petnim, N.Junkrob, N.Hemmakorn PIERS 1999	1				1			
2	<i>GPS Observation of Ionospheric Total Electron Content vs 1.5 GHz-Band Scintillation in the Equatorial Zone</i> O.Petnim, S.Kitsadawanich, N.Junkrob, N. Hemmakorn PIERS 1999	1				1			
3	<i>Rain Induced Depolarization of Ku-Band in Tropical Zone</i> N.Junkrob, S.Kitsadawanich, N.Hemmakorn PIERS 1999	1				1			
4	<i>Low atmospheric wind observation by wind profiler</i> P. Sangonchart, S. Kitsadawanich, N.Leelaruij, A.Masyanon, N.Hemmakorn Ladkrabang Engineering Journal, Vol 15, No. 2			1			1		
5	<i>Nighttime Total electron Content Enhancements at a Bangkok and Association with L-band Scintillations</i> O.Petnim, N.Hemmakorn, A.Decharat, N.Junkrob, S.Kitsadawanich, K.Igarashi Thailand-Japan Joint Symposium On Microwaves 1999 September 21-22, 1999 PP 129-135	1						1	
6	<i>Seasonal and Day-to-Day Variation of Ionospheric Total Electron Content at a Equatorial Zone near Solar Maximum by Using GPS Satellite</i> S.Kitsadawanich, A.Decharat, O.Petnim, N.Junkrob, N.Hemmakorn, K.Igarashi Thailand-Japan Joint Symposium On Microwaves 1999 September 21-22, 1999 PP 137-144	1						1	
7	<i>Lower Atmospheric Observation Using Wind Profiler at KMITL</i> C.Somboonlarp, N.Leelaruij, N.Hemmakorn, A.Manyanon Y.Ohno Thailand-Japan Joint Symposium On Microwaves 1999 September 21-22, 1999 PP 145-151	1						1	
8	<i>Experiments on Ku-band satellite signal propagation of Post-PARTNERS Project in Thailand</i> N.Hemmakorn, T.Boonchuk, A.Decharat, C.Somboonlarp, Nipha Leelaruij, K.Igarashi, M.Kawamura, T.Ojima, H.Seo Proceeding of 1st International Forum on Advanced Satellite Communications in the Asia-Pacific Region, October 25-26, 1999 Tokyo, Japan pp129-135	1							1
9	<i>The Relation of Ionospheric Scintillation in L-band Propagation and Nighttime Enhancement in Total Ionospheric Electron Content</i> S.Kitsadawanich, O.Petnim, N.Hemmakorn 1999 IEEE International Symposium on Intelligent Signal Processing and Communication Systems, December 8-10, 1999, Phuket, Thailand pp129-132	1							1
10	<i>Characteristics of Rain Depolarization for Ku-band Satellite Signal Propagation in the Tropical Environment</i> N.Junkrob, S.Kitsadawanich, A.Decharat, N.Hemmakorn 1999 IEEE International Symposium on Intelligent Signal Processing and Communication Systems, December 8-10, 1999, Phuket, Thailand pp145-148	1							1
11	<i>Study on propagation characteristics of ELF electromagnetic waves associated with lightning discharge</i> K. Makararat, N. Hemmakorn Ladkrabang Engineering Journal, Vol.16 No.3, September 1999, pp 66-71.				1				1
<b>Total Year 1999</b>		<b>9</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>4</b>
No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				

Publication List of the Labs: Satellite Communication

No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				
1	<i>The Quasi-Periodic Phenomenon on Wireless Communication</i> N. Leelarujii, N. Hemmakorn, H. Sakurada, Y. Moriya 1998 International Telecommunication Symposium (ITS'98)	1						1	
2	<i>Satellite Communication System for Post-PARTNERS in Thailand</i> Y. Pongprom, N. Leelarujii, N. Hemmakorn, T. Otsuka, Y. Moriya 1998 International Telecommunication Symposium (ITS'98)	1						1	
3	<i>Depolarization due to rain in Ku-band of THAICOM II Satellite</i> N. Junkrob, S. Kitsadawanich, N. Hemmakorn 21th Electrical Engineering Conference (EECON-21), November 12-13, 1998, Thailand		1						1
4	<i>Study of Relation between the Ionospheric Electron Density Irregularities and Amplitude Scintillation Observed in L-band Satellite Signals</i> O. Petnum, N. Junkrob, S. Kitsadawanich, N. Hemmakorn, Y. Moriya 21th Electrical Engineering Conference (EECON-21), November 12-13, 1998, Thailand		1						1
5	<i>2-Plane Antenna Radiation Pattern Measurement System</i> A. Decharat, N. Junkrob, S. Kitsadawanich, N. Hemmakorn 21th Electrical Engineering Conference (EECON-21), November 12-13, 1998, Thailand		1						1
6	<i>Satellite Tracking System Using Keplerial Orbit Elements</i> N. Junkrob, E. Nugphon, N. Hemmakorn 21th Electrical Engineering Conference (EECON-21), November 12-13, 1998, Thailand		1						1
7	<i>Quasi-Periodic Level Fluctuation in Television Signal</i> W. Choosaeng, S. Kitsadawanich, N. Leelarujii, N. Hemmakorn, Y. Moriya 21th Electrical Engineering Conference (EECON-21), November 12-13, 1998, Thailand		1						1
8	<i>SCPC design for DAMA system</i> K. Pho-ngarm, N. Hemmakorn 21th Electrical Engineering Conference (EECON-21), November 12-13, 1998, Thailand		1						1
9	<i>The Developments of electromagnetic flot to be able to Inhibite Germ to retard Decomposition and Residueal fresh Protein in Waste Water</i> D. Nuamsawade, K. Packamwongsang, N. Hemmakorn 21th Electrical Engineering Conference (EECON-21), November 12-13, 1998, Thailand		1						1
10	<i>C-band Scintillation Satellite Signal effected By Electron density irregularities in Ionospheric atomphere</i> W. Choosaeng, S. Kitsadawanich, N. Hemmakorn 1998 Asia-Pacific Microwave Conference (APMC'98), December 9-11, 1998, Yokohama, Japan	1							1
<b>Total Year 1998</b>		<b>3</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>8</b>
No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				

**Publication List of the Labs: Wireless Communication**

No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				
1	<i>A Circularly Polarized Conical Beam Spherical Slot Array Antenna for Land Mobile Satellite Communication</i> C.Phongcharoenpanich, M.Maruckin, M.Krairiksh and J.Takada The 39th Kasetsart University Annual Conference, pp.217-226, Feb.2001		1			1			
2	<i>Directivity Enhancement of a Conical Beam Antenna for Wireless LAN Applications</i> C. Phongcharoenpanich, S. Amnartpluk, S. Kosulvit, and M.Krairiksh The 39th Kasetsart University Annual Conference, pp.470-479, Feb.2001		1			1			
3	<i>Rigorously Theoretical Formulations of a Small Second Kind Tshebyscheff Array</i> C. Phongcharoenpanich, P. Wounchoum, T.Lertwirivaprapa, and M.Krairiksh The 39th Kasetsart University Annual Conference, pp.459-469, Feb.2001		1			1			
4	<i>A Simple and Cost-Effective Bidirectional Antenna Using a Probe Excited Circular Ring</i> S.Kosulvit, C.Phongcharoenpanich, M.Krairiksh and T.Wakabayashi The IEICE Transactions on Electronics, vol. E84-C, no. 4, pp. 443-450, Apr. 2001.			1			1		
5	<i>Theoretical Investigations of Radiation and Impedance Characteristics of a Probe Excited Rectangular Cavity-Backed Slot Antenna</i> T.Lertwirivaprapa, C.Phongcharoenpanich and M.Krairiksh The Thammasat International Journal of Science and Technology, vol. 5, no. 3, pp. 49-55, Sep. - Dec. 2000.			1			1		
6	<i>Analysis of a Helical Antenna on the Ground Plane Radiating Circularly Polarized Omni-directional Beam</i> S.Lamultree, C.Phongcharoenpanich, T.Lertwirivaprapa, S.Kosulvit and M.Krairiksh The Second National Symposium on Graduate Research, Bangkok, p. 9, Apr. 2001 (in Thai).			1			1		
7	<i>Radiation Characteristics of a Slot Antenna on the Cylindrical Surface</i> P.Wounchoum, C.Phongcharoenpanich, R.Wongsan, S.Kosulvit and M.Krairiksh The Second National Symposium on Graduate Research, Bangkok, p. 10, Apr. 2001 (in Thai).			1			1		
8	<i>Influence of the Parasitic Element to the Radiation Properties of the Conical Beam Antenna for Wireless LAN System</i> S.Amnartpluk, C.Phongcharoenpanich, S.Kosulvit and M.Krairiksh The Second National Symposium on Graduate Research, Bangkok, p. 11, Apr. 2001 (in Thai).			1			1		
9	<i>Application of Gegenbauer Polynomial to Synthesize the Antenna Array Pattern</i> C.Phongcharoenpanich, T.Srovsuwan and S.Kosulvit The Second National Symposium on Graduate Research, Bangkok, p. 49, Apr. 2001 (in Thai).			1			1		
10	<i>A Polarization Diversity PIFA on Portable Telephone and the Human Body Effects on Its Performance</i> K. Meksamoot, M. Krairiksh, and J. Takada IEICE Transactions on Communications, vol. E84-B, no. 9, pp.2460-2467, Sept. 2001.				1			1	
11	<i>A Bidirectional Antenna Using a Probe Excited Circular Ring</i> S. Kosulvit, M. Krairiksh, C. Phongcharoenpanich, and T. Wakabayashi The 2001 Progress in Electromagnetics Research Symposium, Kyoto, Japan, p. 423, July 2001.	1						1	
12	<i>A Switched-Beam Flat Diversity Antenna</i> P. Ngarnianyaporn and M. Krairiksh the 2001 Progress in Electromagnetics Research Symposium, Kyoto, Japan, p. 424, July 2001.	1						1	

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13	<i>A Non-invasive Steerable Array Applicator for Large Surface Hyperthermia</i> M. Krairiksh, C. Thongsopa, A. Mearnchu, D. Srimoon and T. Wakabayashi The 2001 Progress in Electromagnetics Research Symposium, Kyoto, Japan, p. 422, July 2001.	1							1
14	<i>Theory and Experiment of a Circularly Polarized Conical Beam Spherical Slot Array Antenna</i> C.Phongcharoenpanich, M. Krairiksh, and J.Takada The 2001 IEEE International Symposium on Antennas and Propagation and USNC/URSI National Radio Science Meeting, Boston, vol.3, pp.380-383, July 2001.	1							1
15	<i>Characteristics of a Helical Array Antenna Radiating Circularly Polarized Conical Beam</i> C.Phongcharoenpanich, T.Lertwirivaprapa, S.Lamultree, P.Wouchoum, and M.Krairiksh The 2001 IEEE International Symposium on Antennas and Propagation and USNC/URSI National Radio Science Meeting, Boston, vol.4, pp.557-560, July 2001.	1							1
16	<i>Analysis of Impedance Characteristics of a Probe Fed Rectangular Cavity-Backed Slot Antenna</i> T.Lertwirivaprapa, C.Phongcharoenpanich, S.Kosulvit, and M. Krairiksh The 2001 IEEE International Symposium on Antennas and Propagation and USNC/URSI National Radio Science Meeting, Boston, vol.1, pp.576-579, July 2001.	1							1
17	<i>Design of a Spherical Array Self-Mixing Oscillator Antenna</i> M. Krairiksh, W. Buasomboon, P. Ngamianyaporn and C. Phongcharoenpanich 2001 Asia-Pacific Microwave Conference, pp.815-818, Taiwan, December 2001.	1							1
18	<i>Directivity Enhancement of a Bidirectional Antenna using a Linear Array of a Probe Excited Circular Ring for PCT System</i> C.Phongcharoenpanich, P.Wouchoum, S.Kosulvit, M.Krairiksh and T.Wakabayashi The 2001 International Symposium on Communications and Information Technology, Chiang Mai, Thailand, pp.223-226, Nov.2001.	1							1
19	<i>Characteristics of an Omnidirectional Antenna using Circular Array of Slot on Cylinder for TV Broadcasting System</i> C.Phongcharoenpanich, P.Wouchoum, S.Kosulvit, R.Wongsan and M.Krairiksh The 2001 International Symposium on Communications and Information Technology, Chiang Mai, Thailand, pp.223-226, Nov.2001.	1							1
20	<i>Characteristics of a Circular Array of Microstrip Antenna Radiating Circularly Polarized Conical Beam for Wireless LAN Applications</i> C.Phongcharoenpanich, S.Lamultree, I.Buakaew, S.Kosulvit, M.Krairiksh and J.Takada The 2001 International Symposium on Communications and Information Technology, Chiang Mai, Thailand, pp.215-218, Nov.2001.	1							1
21	<i>Characteristics of a Bidirectional Antenna using a Probe Excited Circular Ring</i> S.Kosulvit, C.Phongcharoenpanich, and M.Krairiksh the 24th Electrical Engineering Conference, vol.1, pp. XXX-XXXVII, Nov.2001. (in Thai)		1						1
22	<i>A Vertically Polarized Conical Beam Antenna using a Concentric Circular Array of Monopole Antenna</i> S.Lamultree, C.Phongcharoenpanich, P.Chumthong, S.Kosulvit and M.Krairiksh the 24th Electrical Engineering Conference, vol.2, pp.746-751, Nov.2001. (in Thai)		1						1
23	<i>Input Impedance of the Circumferential Slot Antenna on a Sectoral Cylindrical Cavity Excited by a Probe</i> N.Pasri, R.Wongsan, C.Phongcharoenpanich and M.Krairiksh the 24th Electrical Engineering Conference, pp.711-716, Nov.2001. (in Thai)		1						1
24	<i>Inverse Scattering Measurement of Dielectric Properties by using Method of Moment and Geometrical Theory of Diffraction</i> S. Sangniyom and M. Krairiksh the 24th Electrical Engineering Conference, pp.822-827, Nov.2001. (in Thai)		1						1
<b>Total Year 2001</b>		<b>10</b>	<b>11</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>6</b>	<b>7</b>	<b>8</b>
<b>No.</b>	<b>Papers</b>	<b>Conference</b>		<b>Journal</b>		<b>01</b>	<b>02</b>	<b>03</b>	<b>04</b>
		<b>Inter</b>	<b>Local</b>	<b>Inter</b>	<b>Local</b>				

Publication List of the Labs: Wireless Communication

No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				
1	<b>Impedance Characteristics of a Circularly Polarized Conical Beam Spherical Slot Array Antenna</b> C.Phongcharoenpanich, M.Krairiksh and J.Takada The AP2000 Millennium Conference on Antennas and Propagation, Davos, Switzerland, vol.1, p.203, Apr. 2000.	1					1		
2	<b>Spherical Array Self-Mixing Oscillator Antenna for Steerable Beam Receiving Application</b> M.Krairiksh, T.Lertwiriyaprapa, C.Leckpai and C.Phongcharoenpanich The AP2000 Millennium Conference on Antennas and Propagation, Davos, Switzerland, vol.1, p.226, Apr. 2000.	1					1		
3	<b>Evaluation of Polarization Diversity PIFA on Portable Telephone in Multipath Environment</b> K.Meksamoot, M.Krairiksh and J. Takada The AP2000 Millennium Conference on Antennas and Propagation, Davos, Switzerland, vol.1, p.362, Apr. 2000.	1					1		
4	<b>Discrete Array Antenna Pattern Synthesis with Side Lobe Level Controllable</b> C. Phongcharoenpanich, V. Ongwongwattana, M. Krairiksh and S. Kosulvit Ladkrabang Engineering Journal, Vol. 17, No. 2, pp. 36-40, 2000				1		1		
5	<b>Radiation Characteristics of Discrete Array Pattern Synthesis Yielding Tapered Minor Lobes Using Some Orthogonal Polynomials</b> C.Phongcharoenpanich, T.Lertwiriyaprapa and M.Krairiksh The 2000 Progress in Electromagnetics Research Symposium, Cambridge, USA, p.506, July 2000.	1						1	
6	<b>Method of Moments Analysis of Rectangular Slotted-Cavity Excited by Probe</b> T.Lertwiriyaprapa, C.Phongcharoenpanich, and M.Krairiksh The 2000 Progress in Electromagnetics Research Symposium, Cambridge, USA, p.505, July 2000.	1						1	
7	<b>Analysis of Radiation Characteristics of a Probe Fed Rectangular Cavity-Backed Slot Antenna with Finite-Size Ground Plane</b> T.Lertwiriyaprapa, C.Phongcharoenpanich, and M.Krairiksh The 2000 IEEE International Symposium on Antennas and Propagation and USNC/URSI National Radio Science Meeting, Utah, USA, pp.714-717, July	1						1	
8	<b>A Comparative Study of the Discrete Array Pattern Synthesis Providing the Tapered Minor Lobes</b> C.Phongcharoenpanich, T.Lertwiriyaprapa, and M.Krairiksh The 2000 IEEE International Symposium on Antennas and Propagation and USNC/URSI National Radio Science Meeting, Utah, USA, pp.1126-1129, July	1						1	
9	<b>Estimations of Impedance Characteristics of a Sectoral Cylindrical Cavity-Backed Slot Antenna Fed by Probe</b> R.Wongsan, C.Phongcharoenpanich, and M.Krairiksh The International Forum cum Conference on Information Technology and Communication at the Dawn of the New Millennium, Bangkok, Thailand, pp.467-475 Aug 2000	1						1	
10	<b>Electromagnetic Dyadic Green's Functions of a Sectoral Cylindrical Cavity</b> R.Wongsan, C.Phongcharoenpanich, and M.Krairiksh The International Forum cum Conference on Information Technology and Communication at the Dawn of the New Millennium, Bangkok, Thailand, pp.477-486 Aug 2000	1						1	
11	<b>Synthesis of Array Antenna Pattern Using Discretization of Elementary Geometrical Functions</b> C.Phongcharoenpanich, R.Wongsan, and M.Krairiksh The International Forum cum Conference on Information Technology and Communication at the Dawn of the New Millennium, Bangkok, Thailand, pp.487-496 Aug 2000	1						1	
12	<b>Polarization Characteristics of a Circularly Polarized Conical Beam Spherical Slot Array Antenna</b> C.Phongcharoenpanich, M.Krairiksh and J.Takada The 5th International Symposium on Antennas, Propagation and Electromagnetic Theory, Beijing, China, pp.638-641, Aug. 2000.	1						1	
13	<b>Synthesis of the Antenna Array Pattern Accomplishing the Tapered Minor Lobe Distributions</b> C.Phongcharoenpanich, T.Lertwiriyaprapa, and M.Krairiksh The 5th International Symposium on Antennas, Propagation and Electromagnetic Theory, Beijing, China, pp.642-645, Aug. 2000.	1						1	
14	<b>Analysis of Circular Array of Monopole on the Ground Plane Radiating Linearly Polarized Conical Beam for Wireless LAN Applications</b> C.Phongcharoenpanich, S.Suriya, T.Lertwiriyaprapa, P.Neamjanvaporn, and M.Krairiksh The 5th International Symposium on Antennas, Propagation and Electromagnetic Theory, Beijing, China, pp.646-649, Aug. 2000.	1						1	





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No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				
1	<i>Second Kind Tschebyscheff Array</i> C.Phongcharoenpanich and M.Krairiksh the Progress in Electromagnetics Research Symposium 1999, Taipei, Taiwan, Mar 1999, P. 107.	1				1			
2	<i>A Concentric Conducting Spherical Cavity-Backed Slot Array Antenna Radiating Circularly Polarized Conical Beam</i> C.Phongcharoenpanich, M.Krairiksh and J.Takada the Progress in Electromagnetics Research Symposium 1999, Taipei, Taiwan, Mar 1999, P. 708.	1				1			
3	<i>A steerable active spherical slot array antenna</i> M. Krairiksh, C. Thongsopa and C. Phongcharoenpanich The 1999 Progress in Electronics Research Symposium, Taipei, Taiwan, March, 1999 pp.483	1				1			
4	<i>Rigorous formulations of the three-dimensional finite-difference time-domain method in spherical coordinates</i> E. Khoomwong, C. Phongcharoenpanich, and M. Krairiksh Journal of the National Research Council of Thailand, vol. 29, no.2, pp. 153-183, July-Dec. 1997.				1		1		
5	<i>Design of a bidirectional antenna using a probe excited circular ring</i> S. Kosulvit, M. Krairiksh, C. Phongcharoenpanich, and T. Wakabayashi 1999 Thailand-Japan Joint Symposium on Microwaves, Pattaya, Thailand, pp. 61-68, Sep. 1999.	1						1	
6	<i>Performance of polarization diversity PIFA on a portable telephone in multipath environment</i> K. Meksamoot, M. Krairiksh, and J. Takada 1999 Thailand-Japan Joint Symposium on Microwaves, Pattaya, Thailand, pp. 69-75, Sep. 1999.	1						1	
7	<i>A circularly polarized conical beam spherical slot array antenna</i> M. Krairiksh, C. Phongcharoenpanich, K. Meksamoot, and J. Takada International Journal of Electronics, vol. 86, no. 7, pp. 815-823, July 1999.				1			1	
8	<i>Investigations of radiation characteristics of a circularly polarized conical beam spherical slot array antenna</i> C. Phongcharoenpanich, M. Krairiksh, and J. Takada IEICE Trans. Electronics, vol. E82-C, no. 7, pp. 1242-1247, July 1999.				1			1	
9	<i>Analysis of steerable active slot applicator</i> M. Krairiksh, C. Thongsopa, D. Srimoon, and A. Mearnchu The 1999 Asia Pacific Microwave Conference, Singapore, vol.2, pp.489-492, Dec. 1999.	1							1



Publication List of the Labs: Wireless Communication

No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				
1	<i>Radiation Characteristics of a Both Open-Ended Circular Waveguide by a <math>\lambda/4</math> Monopole</i> S. Kosulvit, C. Phongcharoenpanich and M. Krairiksh MUT Engineering Transactions, Vol.1, No.2, pp.123-126, March-June 1998				1		1		
2	<i>The Discrete Array Pattern Synthesis Which Provides the Tapered Minor Lobes</i> C. Phongcharoenpanich and M. Krairiksh Thammasat International Journal of Science and Technology, Vol.3, No.2, pp.80-87, July 1998			1				1	
3	<i>Radiation Characteristics of a Bidirectional Antenna Using a Linear Probe in a Rectangular Ring</i> S. Kosulvit, C. Phongcharoenpanich, M. Krairiksh and T. Wakabayashi 1998 International Conference on Microwave and Millimeter Wave Technology, pp. 337-340, August 18-20, 1998, Beijing	1						1	
4	<i>Comment on a Partial Spherical Cavity</i> C. Phongcharoenpanich MUT Engineering Transactions, Vol.1, No.3, pp.299-301, July-Oct. 1998				1			1	
5	<i>Various Kinds of Dyadic Green's Functions of the Concentric Conducting Circular Cylindrical Waveguide</i> C. Phongcharoenpanich, A. Mearnchu, M. Krairiksh Ladkrabang Engineering Journal, Vol.5, No.1, pp.23-28, Aug. 1998				1			1	
6	<i>A Steerable Active Applicator</i> M. Krairiksh, C. Thongsopa and A. Mearnchu 1998 Asia Pacific Microwave Conference, Dec. 8-11, 1998, Yokohama, Vol. 2., pp. 86-864.	1							1
7	<i>Radiation Characteristics of a Circularly Polarized Conical Beam Spherical Slot Array Antenna</i> C. Phongcharoenpanich, M. Krairiksh, K. Meksamoot and J. Takada 1998 Asia Pacific Microwave Conference, December 8-11, 1999, Yokohama, Vol. 3, pp. 1229-1232	1							1
8	<i>Discrete Array Pattern Synthesis by Using Some Orthogonal Potynomials</i> C. Phongcharoenpanich and M. Krairiksh 1998 IEEE Asia Pacific Conference on Communication/Singapore International Conference on Communication System (APCC/ICCS'98), November 23-27, 98, Singapore, Vol. 1, pp. 433-437	1							1
9	<i>Polarization Diversity PIFA for Small Portable Telephone</i> K. Meksamoot, M. Krairiksh and J. Takada International Symposium on Wireless Personal Multimedia Communications, Yokosuka, Japan, pp.304-307, Nov. 1998	1							1
10	<i>Electromagnetic Field in a Concentric Conducting Circular Cavity Excited by Rectangular Waveguide</i> C. Sangdao and M. Krairiksh the 1998 Asia Pacific Conference on Circuits and Systems, pp. 691-694, November 24-27, 1998, Chiang Mai, Thailand	1							1
11	<i>Input Resistance of a Hollow Cylindrical Cavity Resonator Excited by and Electric Probe.</i> C. Laohapensaeng, M. Krairiksh and S. Kosulvit the 1998 Asia Pacific Conference on Circuits and Systems, pp. 695-698, November 24-27, 1998, Chiang Mai, Thailand	1							1
12	<i>Electromagnetic Field Analysis inside a Segmented Cavity Using the Finite-Difference Time-Domain Method</i> E. Khoomwong, C. Phongcharoenpanich and M. Krairiksh the 21st Electrical Engineering Conference, Bangkok, Thailand, pp.521-524, Nov. 1998		1						1
13	<i>Theoretical Investigation of a Slot on Spherical Surface</i> C. Leekpai, C. Phongcharoenpanich and M. Krairiksh the 21st Electrical Engineering Conference, Bangkok, Thailand, pp.513-516, Nov. 1998		1						1
14	<i>Analysis of Electric Field in a Lossy Dielectric Sheet between Paralleled Infinite Conducting Planes Excited by the Slot Antenna using SDA</i> D. Srimoon, W. Watcharananuth, C. Phongcharoenpanich and M. Krairiksh the 21st Electrical Engineering Conference, Bangkok, Thailand, pp.517-520, Nov. 1998		1						1
15	<i>Electromagnetic Field Analysis of the Three-Dimensional Finite-Difference Time-Domain Method Spherical Coordinates</i> E. Khoomwong, C. Phongcharoenpanich, M. Krairiksh KMUTT Research and Development Journal				1				1
<b>Total Year 1998</b>		<b>7</b>	<b>3</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>10</b>
No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				

Publication List of the Labs: Signal Transmission System

No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				
1	<i>A Robust Variable Step-size LMS-like Algorithm for a Second-order Adaptive IIR Notch Filter for frequency Detection</i> Rachu Punchalard, Chawalit Benjangkprasert SPAWC-2001 March 20-23, 2001, Taoyuan, Taiwan, R.O.C	1				1			
2	<i>Characteristics of Aperture Array Antenna Coupled by Microstrip Line</i> N. Anantrasirichai, P. Ruglure, T. Kunii, T. Wakabayashi, H. Matsui PIERS 2001 July 18-22, 2001, Osaka, Japan	1						1	
3	<i>Measurement Examination of the Relation Between Scintillation Expression Methods</i> V. Chutchavong, O. Sangaroon, N. Anantrasirichai, J. Ngamwiwit, K. Janchitraponvej, Y. Moriya PIERS 2001 July 18-22, 2001, Osaka, Japan	1						1	
4	<i>Characteristic of Ionospheric Scintillation Occurring in Equatorial Region</i> O. Sangaroon, J. Giwan, A. Lasakul, K. Janchitraponvej AP-RASC'01 August 1-4, 2001, Chuo University, Tokyo, Japan	1						1	
5	<i>On Design of Active Crossover Networks Using Ultraspherical Generalized Bessel Polynomials</i> U. Sridiceravirrojana, S. Saetia, K. Janchitraponvej ISIC-2001.3-5 September 2001, Singapore	1						1	
6	<i>The Fast Convergence Speed Lowest Complexity Memoryless Non-Linear Gradient Algorithm For a Second-order Adaptive IIR Notch Filter</i> C. Benjangkprasert, K. Janchitraponvej, O. Sangaroon ISIC-2001.3-5 September 2001, Singapore	1						1	
7	<i>Vriable Step Size Algorithm for Vattice Form Adaptive IIR Notch Filter</i> Benjangkprasert, et.al ISIC-2001.3-5 September 2001, Singapore	1						1	
8	<i>Performance Analysis of Binary Phase Precoding with Turbo Codes Using Transfer Function</i> Keattisak Sripimanwat, Attasit Lasakul, Punya Thitimajshima ICICS October 15-18, 2001, Mandarin Singapore Hotel, Singapore	1							1
9	<i>A Fast Convergence and Robust Algorithm for Adaptive IIR Notch Filter</i> C. Benjangkprasert, P. Tupchai, K. Janchitraponvej, O. Sangaroon ICONIP-2001, 8th International Conference on Neural Information Processing, Shanghai, China 14-18 Nov 2001	1							1
10	<i>Prediction Method For Scintillation Expression Converting Based On Local Measurement Of Meteorological Parameters</i> J. Naksuwan, V. Chutchavong, O. Sangaroon, C. Benjangkprasert, Y. Moriya ISCIT 2001, 14-16 November 2001, Chiang Mai Orchid Hotel, Chiang Mai	1							1
11	<i>Synthesis of Active HPF Using Uniformly Distributed RC Line</i> S. Sudo, M. Teramoto, P. Tangtisanon, S. Saetia, K. Janchitraponvej ISCIT 2001, 14-16 November 2001, Chiang Mai Orchid Hotel, Chiang Mai	1							1
12	<i>Adaptive IIR filter designed for the separation of scintillation and rain attenuation phenomena</i> O. Sangaroon, V. Chutchavong, K. Anekpongpan, C. Benjangkprasert, P. Sooraksa, Y. Moriya ICCAS (2001 on International Conference on Control Automation and System)	1							1
13	<i>Echo Cancellation using IIR Digital Filter</i> Wuthiporn Lerdvasana, K. Janchitraponvej The Fifth National Computer Science and Engineering Conference, 7-9 November 2001, Chiang Mai University, Chiang Mai		1						1
14	<i>Adaptive Equalizer Using IIR/FIR Digital Filter</i> V Lertwasana, R. Punchalard, K. Janchitraponvej The Fifth National Computer Science and Engineering Conference, November 7-9, 2001, Chiang Mai, Thailand		1						1
15	<i>Television Ghost Cancellation Using Adaptive Equalizer</i> V Lertwasana, R. Punchalard, K. Janchitraponvej 4th Electrical Engineering Conference (EECON-24), November 22-23, KMITL		1						1
<b>Total Year 2001</b>		<b>12</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>6</b>	<b>8</b>
No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				

**Publication List of the Labs: Signal Transmission System**

No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				
1	<i>On-Line Writer Recognition for Thai Cursive Script</i> P. Thumwarin NORSIG2000, Sweden.	1				1			
2	<i>Notch Frequency Adjustable Active Filter Using Uniformly Distributed RC Line</i> P. Tangtisanon, K. Janchitapongvej Denki Gakkai, ECT-00-32, 4 April 2000	1				1			
3	<i>Capacitive Double Layers URC Line and It's Applications to Active Filter.</i> K. Janchitrapongvej, V. Kawejan, P. Tangtisanon, K. Janchitrapongvej TENCON2000, Kuala Lumpur, 24 - 27th Sept. 2000.	1					1		
4	<i>On the Measurement of Amplitude Scintillation on earth Satellite Via Thaicom.</i> O. Saingaroon et al. O. Saingaroon PIER2000 Mit, Massachusetts 4 - 12 July 2000.	1					1		
5	<i>FDTD Analysis of Printed Antenna fed by Microstrip Line</i> N. Anantrasirichai, N. Anantrasirichai PIER2000 Mit, Massachusetts 4 - 12 July 2000.	1					1		
6	<i>The Reduction of Gradient Noise in OLMP by using VSS Technique</i> R. Punchalnd, C. Benjankaprasert, K. Janchitrapongvej Engineering Transaction Mahanakorn University of Technology Jan-April 2000 Vol. 3 No. 1 PP 48 _53				1		1		
7	<i>Capacitive Double Layers Uniformly Distributed RC Line and It's Applications to Active Filters.</i> K. Janchitrapongvej, C. Benjankaprasert, et.al IEEE TENCON 2000 International Conference 24-27 September 2000, Kuala Lumpur, Malaysia.	1							1
8	<i>Amplitude Scintillations on Earth Satellite Uia Thaicom</i> O. Saingaroon, K. Janchitrapongvej et.al IEEE TENCON 2000 International Conference 24-27 September 2000, Kuala Lumpur, Malaysia.	1							1

**Publication List of the Labs: Signal Transmission System**

9	<i>Short-Term Frequency Spectra of Amplitude Scintillation observed by Thaicom Broadcasting Satellite</i> O. Sangaroon, C. Benjanikaprasert & K. Janchitrapongvej APSSBC 200 DEC 21 _ 23, 2000 (KMITL)	1							1
10	<i>Realization of An Equalizer using Uniformly Distributed RC Circuits</i> K. Janchitrapongvej, et.al APSSBC 2000 Dec 21 _ 23, 2000 (KMITL)	1							1
11	<i>Crossover Networks Design using Ultraospherical Generalized Bessel Polynomials</i> K. Janchitrapongvej, et.al APSSBC 2000 Dec 21 _ 23, 2000 (KMITL)	1							1
12	<i>Novel Active Low Pass Filter with Notch circuits using Distributed RC Line</i> P. Tangtisanon, K. Janchitrapongvej, et.al APSSBC 2000 Dec 21 _ 23, 2000 (KMITL)	1							1
13	<i>The Modification of the Normalized Quantized Gradient Based Adaptive IIR Notch Filter, for Frequency Estimation</i> C.Benjanikaprasert,O.Sangaroon, K. Janchitrapongvej APSSBC 200 DEC 21 _ 23, 2000 (KMITL)	1							1
14	<i>Characteristics of Printed Antenna Fed by Microstrip Line</i> N. Anantrasirichai, T. Wakabayashi APSSBC 2000 Dec 21 _ 23, 2000 (KMITL)	1							1
15	<i>A Universal Voltage mode current conveyor</i> W.Lertvasana , K Janchitrapongvej EECON 23 ,23-24 November 2000 ,Chiengmai University, Thailand		1						1
16	<i>Variable step Size Adaptive Lattice IIR North Filter</i> R. Punchaland , C. BenjangKapasit . et.al EECON 23 ,23-24 November 2000 ,Chiengmai University, Thailand		1						1
17	<i>The Reduction of Gradient Noise-Base Algorithm (OLMP) by using variable. Step Size Technique (VSS)</i> R. Punchaland , C. BenjangKapasit . et.al Engineering Transaction Mahanakorn University of Technology Jan-April 2000 Vol. 3 No. 1				1			1	
<b>Total Year 2000</b>		<b>13</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>5</b>	<b>2</b>	<b>8</b>
<b>No.</b>	<b>Papers</b>	<b>Conference</b>		<b>Journal</b>		<b>01</b>	<b>02</b>	<b>03</b>	<b>04</b>
		<b>Inter</b>	<b>Local</b>	<b>Inter</b>	<b>Local</b>				

**Publication List of the Labs: Signal Transmission System**

No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				
1	<i>Design on Active Notch Filter using URC</i> Engineering Transmissions Mahanakorn University, May-August, vol.2, No.2, 1999				1		1		
2	<i>Active Distributed RC 3rd order Low Pass Filter</i> Thailand Engineering Journal, No.2, pp.48-52, Feb. 1999				1		1		
3	<i>Active Band Pass Filter with Noeth Characteristics Circuit using Uniformly Distributed RC line</i> P. Tangtisanoon, M. Teamoto, K. Janchitrapongvej, S. Sudo, Y. Suzuki IEEE ISPACS' 99, Dec 8-10, 1999, Phuket, Thailand	1							1
4	<i>Writer Recognition Based on Time-Frequency characteristics of Handwriting motion</i> T. Matsuura, P. Thumwarin IEEE ISPACS' 99, Dec 8-10, 1999, Phuket, Thailand	1							1
<b>Total Year 1999</b>		<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>
No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				
1	<i>Adjustable Notch Frequency Active Filter using URC</i> The School of Engineering, Tokai University, Vol.38, No.2, pp 67-72	1					1	*	*
2	<i>Notch Tunable Filter using DURC Line.</i> 1998 IEEE Asia Pacific Conference on Communication/Singapore International Conference on Communication System (APCC/ICCS'98), November 23-27 98 Singapore	1					1		
3	<i>On the Equalization of Luminance Amplitude Distortion in Video Signal Transmission</i> 1998, International Conference on Neural Network & Brain ,October 1998, Peking	1					1		
4	<i>Active LPF using URC line1</i> 1998 IEEE Asia-Pacific Conference on Circuits and System (APCCAS'98), November 24-27, 1998, Chiang Mai, Thailand	1					1		
<b>Total Year 1998</b>		<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>
No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				

Publication List of the Labs: Communication Networks

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>Image Ghosting Elimination in an I-frame of Interlaced 3D-Video</i> Chompoonoot Tengcharoen, Ruttikorn Varakulsiripunth, et al. 1st International Conference on Mechatronics (ICOM'01), 12-13 February 2001, Kuala Lumpur, Malaysia.	1				1			
2	<i>Dynamic Multicast Routing under Inaccurate Links State Information</i> Apipol Gunabhibal, Chotipat Pornavalai, Ruttikorn Varakulsiripunth Student Conference on Research and Development (SCOREd 2001), 20-21 February, 2001 Kaula Lumpur, Malaysia.	1				1			
3	<i>Effect of The Bottleneck Bandwidth Sharing Fairness Control to Network Round Trip Delay</i> Sumet Prabhavat, Suthichai Noppanakepong, Ruttikorn Varakulsiripunth Student Conference on Research and Development (SCOREd 2001), 20-21 February, 2001 Kaula Lumpur, Malaysia.	1				1			
4	<i>Composition Method of Communication System Specification in Asynchronous Model and Its Support System</i> Noppadol Maneerat, Ruttikorn Varakulsiripunth, et.al. The 9th IEEE International Conference on Networks (ICON 2001), at Bangkok, Thailand, 10-12 October, 2001	1							1
5	<i>Service Enhancement using Resource Evolutionary Management</i> Akharin Khunkitti, Ruttikorn Varakulsiripunth The 9th IEEE International Conference on Networks (ICON 2001), at Bangkok, Thailand, 10-12 October, 2001	1							1
6	<i>Dynamic Multicast Routing with Advance Reservations</i> Apipol Gunabhibal, Chotipat Pornavalai, Ruttikorn Varakulsiripunth International Symposium on Communications and Information Technology (ISCIT 2001), 14-16 November, 2001, Chiang Mai, Thailand	1							1
7	<i>Packet Throughput in Slotted ALOHA Hybrid DS/SFH CDMA Systems for Wireless Communications</i> Prach Dabbang, Ruttikorn Varakulsiripunth International Symposium on Communications and Information Technology (ISCIT 2001), 14-16 November, 2001, Chiang Mai, Thailand	1							1
<b>Total Year 2001</b>		<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>4</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				

**Publication List of the Labs: Communication Networks**

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<b>Channel Reservation for Handover User in One-dimensional Cellular Networks</b> S. Thipchaksurat, Y. Onozato, R. Varakulsiripunth et.al. IEICE in Japan for consideration.			1		1			
2	<b>An Analysis of the New Call Channel Limiting Technique for Mobile Users with Two-way Traffic in One-dimensional Cellular Networks</b> S. Thipchaksurat, Y. Onozato, R. Varakulsiripunth et.al. APCCAS 2000, Souel, Korea	1					1		
3	<b>Hybrid Double Star Network for Microcellular in Mobile Communication Systems</b> Tassanai Banlera, Somsuda Kerddit, Suthichai Noppanakeepong First National Symposium on Graduate Research, Chiang Mai, Thailand, 10-11 June, 2000.		1				1		
4	<b>Detection of Optical Digital Signal Based on Polarization Shift Keying for Optical Code Division Multiple Access Systems</b> Apinya Kotiram, Settakorn Gamuang, Suthichai Noppanakeepong First National Symposium on Graduate Research, Chiang Mai, Thailand, 10-11 June, 2000		1				1		
5	<b>Performance of Maximal Ratio Based Mix-signal Equipment for Binary Signal by Using the Weight of Error</b> Narong Narongrat, Tayanut Rodcharoen, Settakorn Gamaung, Suthichai Noppanakeepong, Krit Wongrujira First National Symposium on Graduate Research, Chiang Mai, Thailand, 10-11 June, 2000		1				1		
6	<b>Construction of Spreading Sequence Signal of Spread Spectrum Communication Using Wavelet Transform</b> Settakorn Gamaung, Krit Wongrujira, Suthichai Noppanakeepong First National Symposium on Graduate Research, Chiang Mai, Thailand, 10-11 June, 2000		1				1		
7	<b>Frame Relay to ATM PVC Network Internetworking Management</b> Weerachai Duangkreu, Somsuda Kerddit, Suthichai Noppanakeepong TENCON 2000, Kuala Lumpur, Malaysia, 24th - 27th September 2000	1					1		
8	<b>Fuzzy Logic Controller for Temperature of Closed Water Tank</b> Nalunat Khongkoom, Suthichai Noppanakeepong et al TENCON 2000, Kuala Lumpur, Malaysia, 24th - 27th September 2000	1					1		
9	<b>Control of the Position DC Servo Motor by Fuzzy Logic</b> Nalunat Khongkoom, Suthichai Noppanakeepong et al TENCON 2000, Kuala Lumpur, Malaysia, 24th - 27th September 2000	1					1		



**Publication List of the Labs: Communication Networks**

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>Transition State for Impaired LEOs Channel Using Direct Sequence Spread Slotted ALOHA Scheme</i> Kanlaya Janchowna, Seri Assavaruk, Suvepol Sittichevapak and Ruttikorn Varakulsiripunth The Thailand-Japan Joint Symposium on Microwaves 1999 (TJMW'99), will be held in Pattaya, Thailand, September 21 and 22, 1999	1						1	
2	<i>Alarm Measure for Impaired Mobile Satellite Channel Using Direct Sequence Spread Slotted ALOHA Scheme</i> Seri Asvaruk, Suvepol Sittichivapak and Ruttikorn Varakulsiripunth 1999 IEEE International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS'99), Phuket, Thailand, 8-10 December, 1999	1							1
3	<i>The Effect of Location and Topology in Network Management Polling</i> Akharin Khunkitti, Ruttikorn Varakulsiripunth, Glenn Mansfield and Norio Shiratori 1999 IEEE International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS'99), Phuket, Thailand, 8-10 December, 1999	1							1
4	<i>On Precomputing of QoS Paths</i> Phongkaew Kaewyongphang, Chotipat Pornavalai, Ruttikorn Varakulsiripunth, Goutam Chakraborty and Norio Shiratori 1999 IEEE International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS'99), Phuket, Thailand, 8-10 December, 1999	1							1
5	<i>Generating Stereoscopic Video by Using Active/Passive Optical Mechanism</i> Para Limmaneeprasert and Ruttikorn Varakulsiripunth 1999 IEEE International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS'99), Phuket, Thailand, 8-10 December, 1999	1							1
6	<i>Encoding 3D Video by Using APOM</i> Para Limmaneeprasert and Ruttikorn Varakulsiripunth Fifth Asia-Pacific Conference on Communication and Fourth Optoelectronics and Communications Conference (APCC and OECC '99), Beijing, China, October 18-22, 1999	1							1
7	<i>Encoding 3D-Video Signal Using APOM</i> Chompunut Tengcharoen, Para Limmaneeprasert and Ruttikorn Varakulsiripunth 22nd Electrical Engineering Conference (EECON-22), Kasetsart University, Bangkok, Thailand, in December 2-3, 1999		1						1
8	<i>Investigation Misspelling Words in Thai Sentence by Using Dictionary</i> Prapapun Kongviserance and Ruttikorn Varakulsiripunth Journal of the National Research Council of Thailand, Vol.31, Nos. , January-December 1999				1				1
<b>Total Year 1999</b>		<b>6</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>7</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				

**Publication List of the Labs: Communication Networks**

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>Design and Analysis on Computer Communication Networks by Computer Software</i> S. Thipchaksurat, U. Yamamoto, R. Varakulsiripunth, U. Onozato Technical Report of IEICE, 19 December, 1997			1			1		
2	<i>Topology Design for the Royal Thai Navy Computer Network</i> W. Prompibarn, R. Varakulsiripunth Ladkrabang Information Journal				1			1	
3	<i>Some General Approches for Performance Analysis of the ALOHA-based Satellite Channel</i> S. Assavarak, S. Sittichevapak, R. Varakulsiripunth 1998 IEEE Asia-Pacific Conference on Circuits and System (APCCAS'98), November 24-27, 1998, Chiang Mai, Thailand	1							1
4	<i>Incorrect Word Checking and Correcting in Thai Sentences</i> P. Kongvitseran, R. Varakulsiripunth 21th Electrical Engineering Conference (EECON-21), Nov. 12-13, 1998, Bangkok, Thailand		1					1	
5	<i>Traffic Simulation for State Investigation of Local area Network</i> S. Prabhavat, S. Nopanakeepong 21th Electrical Engineering Conference (EECON-21), Nov. 12-13, 1998, Bangkok, Thailand		1						1
6	<i>Word Segmentation for Spelling Chek in Thai Sentence</i> P. Konhvitscran, R. Varakulsiripunth Ladkrabang Engineering Journal Vol. 15, No.2 December 1998				1				1
7	<i>Traffic Simulation for State Investigation of Local area Network</i> S. Prabhavat, S. Nopanakeepong Ladkrabang Engineering Journal Vol. 15, No.2 December 1998				1				1
<b>Total Year 1998</b>		<b>1</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>4</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				

Publication List of the Labs: Information Science

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>Printed Thai characters recognition using multifeature and multilevel classification</i> Thirat Seubsanit and Chom Kimpan SCORED 2001, February 20-21, 2001, Kuala Lumpur, Malaysia	1				1			
2	<i>3-D Human Faces Recongition from Dynamic Contours Plane's Area, Rough Sets as the classifier</i> Watjanapong Kasemsiri, Yingyos Sriboonruang, Seri Pansang and Chom Kimpan SCORED 2001, February 20-21, 2001, Kuala Lumpur, Malaysia	1				1			
3	<i>Performance Evaluation of DS-CDMA using MRC with Weighting Error over Rician Fading Channels</i> Wiren Rattanakoch, Settekorn Kamuang, Narong Narongrat, Chom Kimpan and Suthchai Noppanakeepong SCORED 2001, February 20-21, 2001, Kuala Lumpur, Malaysia	1				1			
4	<i>Invariant Object recognition Using Shape Descriptors and Genetic Algorithms</i> Sombut Foitong, Pisit Phokharatkul and Chom Kimpan ISAS SCI 2001, July 22-25, 2001, Orlando, Florida, USA.	1					1		
5	<i>A Rough Ring Projection Method for Invariant Thai Character Recognition</i> Pisit Phokharatkul, Chom Kimpan and Sato Makoto ISAS SCI 2001, July 22-25, 2001, Orlando, Florida, USA.	1					1		
6	<i>Performance Evaluation of DS-CDMA using MRC with Weighting Error over Rician Fading Channels</i> Pisit Phokharatkul, Somchaok Kimpan and Chom Kimpan ISAS SCI 2001, July 22-25, 2001, Orlando, Florida, USA.	1					1		
7	<i>3-D Face Recognition by Using Gradient Transform and Neural Networks</i> Seri Pansang, and Chom Kimpan Internation Symposium on Communication and Information Technology (ISCIT 2001) ChiangMai , Thailand 14-16 November 2001	1							1
8	<i>Selection Diversity Performance of Binary Signal with Unequal Mean SNR over Multipath Fading Channel</i> A. Techotchawan, C. Kumpaee, S. Oumsin, and Chom Kimpan Internation Symposium on Communication and Information Technology (ISCIT 2001) ChiangMai , Thailand 14-16 November 2001	1							1
9	<i>Performance of MRC Diversity with Unequal Mean Strengths Over Rayleigh-Fading Channel</i> C. Kumpaee, C. Siripun, S. Omsin ,S. Noppanakeepong, and Chom Kimpan Internation Symposium on Communication and Information Technology (ISCIT 2001) ChiangMai , Thailand 14-16 November 2001	1							1
10	<i>Performance of DS-CDMA System Usinf MRC Diversity with Channel Estimation Errors</i> W. Rattanakoch, S. Sudkeaw,C. Kumpiree,S. Noppanakeepong, and Chom Kimpan Internation Symposium on Communication and Information Technology (ISCIT 2001) ChiangMai , Thailand 14-16 November 2001	1							1
11	<i>Adaptive Noise Canceller with Parallel Block Structure Using Input as Auxiliary Signal</i> P. Kidakorn,S. Noppanakeepong,and W. Rattanakoch Internation Symposium on Communication and Information Technology (ISCIT 2001) ChiangMai ,Thailand 14-16 November 2001	1							1
12	<i>Object Recognition Using Characteristic component and Genetic Algorithm</i> Pisit Phokharatkul, Somchaok Kimpan and Chom Kimpan Internation Conference on Electrical and Electronics Technology , Singapore 19-22 August 2001	1							1
13	<i>Automatic Thai and English fonts identification without character recognition</i> B. Kruatrachue, and P. Piyatrakul 2001 IEEE Pacific Rim Conference on Communications, Computer and Signal Processing (PACRIM'01), Canada, August 19-22, 2001, volume 2 : 2001 Page(s): 603-606	1							1
14	<i>Thai OCR error correction using token passing algorithm</i> Manus Rodphon, , Krittiwan Siriboon and Boontee Kruatrachue 2001 IEEE Pacific Rim Conference on on Communications, Computer and Signal Processing (PACRIM'01), Canada, August 19-22, 2001, volume 2 : 2001 Page(s): 599-602	1							1
15	<i>Genetic Algorithm for Invariant Shape Object Recognition</i> Sombut phoithong, Chom Kimpan, Pisit Phokharatkul, and Ouen Pinngern Electrical Engineering Conference (EECON-24), Bangkok, Thailand, 22-23 November 2001		1						1
<b>Total Year 2001</b>		<b>14</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>9</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				

Publication List of the Labs: Information Science

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>Refined Language Modelling for Thai Continouse Speech Recognition</i> R. Kongkachadra and C. Kimpan SNLP 2000, 10-12 May 2000, Changmai, Thailand.	1				1			
2	<i>Genetic-Fuzzy-Neural Network System for Thai charecters Recognition</i> P. Phokharatkul and C. Kimpan SNLP 2000, 10-12 May 2000, Changmai, Thailand.	1				1			
3	<i>Recognition of printed Thai Characters Elliptic Fourier descriptors and Genetic neural networks</i> Pisit Phokharatkut, Ukrit Marang and Chom Kimpan TACIT '2000, August 24-25, 2000, Bangkok, Thailand	1					1		
4	<i>3D Objects Recognition from Shadow Shape Curves</i> Seri Pansang and Chom Kimpan APCCAS'2000 , Tianjin, China.	1						1	
5	<i>Recognition of Printed Thai Characters using Elliptic Fourier descriptors and Genetic neural networks</i> Pisit Phokharatkut, Ukrit Marang and Chom Kimpan APSB'2000,December 21-23, 2000, Bangkok, Thailand.	1						1	
6	<i>Human face Recognition Using Range images shape curve Analysis and Neural Networks.</i> Seri Pansang, Yingyos Sriboonruang and Chom Kimpan APSB'2000, December 21-23, 2000, Bangkok, Thailand.	1						1	
7	<i>Printed Thai Characters Recognition using 2 class levels classification and Rough set.</i> Watjanapong Kasemsiri, Pisit Phokaratkul and Chom Kimpan APSB'2000,December 21-23, 2000, Bangkok, Thailand.	1						1	
8	<i>An Integration of Intelligent Map and GPS Navigation System</i> Prapakorn Lapprasop and Visit Hirankitti NCSEC 2000, November 16-17, 2000, Bangkok, Thailand.		1						1
9	<i>Recognition of Printed Thai Characters Using Boundary Normalization and Fuzzy Neural Networks</i> U. Marang , P. Phokharatkul and C. Kimpan SNLP 2000, 10-12 May 2000, Changmai, Thailand.	1							1
10	<i>Recognition of printed Thai Characters Using Fourier descriptors and Genetic neural networks</i> P. Phokharatkul and C. Kimpan SNLP 2000, 10-12 May 2000, Changmai, Thailand.	1							
11	<i>Thai Isolated Word Recogniton Based on Pattern Matching</i> T. Seubsanit, S. Phaiboon, P. Phokaratkul and C. Kimpan 38th Kasetsart University Annual Conference, Bangkok,Thailand, February 1-4,2000		1			1			
12	<i>Fuzzy-neural systems for printed Thai character Recognition</i> U. Marang , U. Sombatkaew , P. Phokharatkul and C. Kimpan Engineering in the New Millennium, Khon Kaen, Thailand, Janury 25,2000		1			1			
<b>Total Year 2000</b>		<b>9</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>7</b>	<b>0</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				

Publication List of the Labs: Information Science

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>Using K-L Transform for Feature Reduction and Tones Analysis in Thai Harmonic-Frequency Speech</i> R. Kongkachandra, K. Tamee and C. Kimpan 1999 IEEE-ISPACS'99, Phuket Thailand, December 8-10 1999	1							1
2	<i>Improving Thai Isolated Word Recognition by K-L Transform and Learning Vector Quantization</i> R. Kongkachandar, K. Tamee and C. Kimpan 1999 IEEE ISPACS'99 Phuket Thailand	1							1
3	<i>Thai Syllable Segmentation for Connected Speech Based on Energy and Maximum Likelihood Ratio Criterion</i> V. Kaseamsiri and C. Kimpan. EECON-22, 2-3 December, 1999, Bangkok, Thailand.		1						1
4	<i>Recognition of Handprinted Thai Characters Using Karhunen-Loeve Transform and Fuzzy-Neural Network</i> Vixinh Moungsish, Pisit Phokharatkul and Chom Kimpan EECON-22, 2-3 December, 1999, Bangkok, Thailand.		1						1
5	<i>2D Object Recognition by Fuzzy Pyramid and Neural Network</i> S. Arkhan and C. Kimpan NESEC'99		1						1
6	<i>LPC-EFD FIMN Thai Speed Word Recognition</i> Padungsak Duangmatpol and Chom Kimpan NESEC'99		1						1
7	<i>Thai Speed Word Recognition using Multi Neural Networks Learning Feature Vectors from LPC already classified by Fuzzy Membership</i> Padungsak Duangmatpol and Chom Kimpan EECON-22, 2-3 December, 1999, Bangkok, Thailand.		1						1
8	<i>Edge Syntactic Description of Thai Character Recognition</i> Sommai Buyamsong and Chom Kimpan. EECON-22, 2-3 December, 1999, Bangkok, Thailand.		1						1
<b>Total Year 1999</b>		<b>2</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>Recognition of Handprinted Thai Characters using the Cavity Features of Character Based on Neural Network</i> P. Phokharatkul and C. Kimpan The 1998 IEEE Asia-Pacific Conference on Circuits and System, pp. 149-152 November 24-27, 1998, Chiang Mai, Thailand	1							1
2	<i>Thai Intonation Analysis in Harmonic-Frequency Domain</i> R. Kongkachandra, S. Pansang, T. Sripramong and C. Kimpan The 1998 IEEE Asia-Pacific Conference on Circuits and System, pp. 165-168, November 24-27, 1998, Chiang Mai, Thailand	1							1
3	<i>Extraction of Intonation in Thai Language by Karhunen-Loeve Transformation</i> R. Kongkachandra, K. Tamee and C. Kimpan 1998 Conference TSD-Text, Speech, Dialog at Czech Republic.	1							1
4	<i>Experiment Result of Exploiting Karhunen-Loeve Method for Thai Speech Recognition Preprocessing</i> K. Tamee, C. Kimpan and R. Kongkachandra 21th Electrical Engineering Conference (EECON-21), Nov. 12-13, 1998, Bangkok, Thailand		1						1
5	<i>Numerals Pattern Recognition Using Fuzzing Geometric and Genetic Algorithms</i> A. Marang, C. Kimpan, P. Phokharatkul 21th Electrical Engineering Conference (EECON-21), Nov. 12-13, 1998, Bangkok, Thailand		1						1
6	<i>Displaying and Searching Routes on Map</i> P. Laphrasup and C. Kimpan 21th Electrical Engineering Conference (EECON-21), Nov. 12-13, 1998, Bangkok, Thailand		1						1
7	<i>Syntactic Pattern Recognition of Arabic Numeric Characters</i> C. Kimpan, S. Anuvak and T. Klertnoon 21th Electrical Engineering Conference (EECON-21), Nov. 12-13, 1998, Bangkok, Thailand		1						1
<b>Total Year 1998</b>		<b>3</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				

Publication List of the Labs: Multimedia and Virtual

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>Delay Effect Simulation of Multiple-Lock Checking Algorithm for Distributed Shared Virtual Environment</i> O. Wongwirat, C. Sathitwiriawong, and S. Ohara Int. Conf. Augmented, Virtual Environments, and Three-Dimensional Imaging, May 30 - June 01 2001. Greece	1					1		
2	<i>An Adjustment Model of Continuous Data Streams for Multimedia Network</i> S. Ohara, O. Wongwirat, and C. Sathitwiriawong 5th World Multiconference on Systemics, Cybernetics and Informatics (SCI 2001), July 2001, pp 316-319	1						1	
3	<i>Digital Watermarking Technique for Image Authentication by Neighbouring Block Similarity Measure</i> N. Chotikakamthorn and W. Sanigamkul IEEE Region 10 International Conference on Electrical and Electronic Technology (TENCON 2001), August 19-22, 2001	1						1	
4	<i>Ring-shaped Digital Watermark for Rotated and Scaled Images Using Random-Phase Sinusoidal Function</i> N. Chotikakamthorn, and S. Pholsomboon IEEE Region 10 International Conference on Electrical and Electronic Technology (TENCON 2001), August 19-22, 2001	1						1	
5	<i>Performance Evaluation of Traffic Congestion for Multiple-Lock Checking Algorithm in Distributed Shared Virtual Environment Applications</i> O. Wongwirat, C. Sathitwiriawong, and S. Ohara IEEE Region 10 International Conference on Electrical and Electronic Technology (TENCON 2001), August 19-22, 2001	1						1	
6	<i>Volume Structure for Geometric Deformations</i> I. Burintramart, and S. Ohara IEEE Region 10 International Conference on Electrical and Electronic Technology (TENCON 2001), August 19-22, 2001	1						1	
7	<i>PSF Estimation Method Using GA-CGM for Image Restoration</i> S. Danainalumol, S. Vannakrairoj, N. Chotikakamthorn NECTEC Journal, No. 41, July-August 2001			1				1	
8	<i>Partial Image Authentication by Digital Watermarking Technique</i> W. Sanigamkul, and N. Chotikakamthorn International Symposium on Communication and Information Technology (ISCIT 2001) ChiangMai, Thailand 14-16 November 2001	1							1
<b>Total Year 2001</b>		7	0	0	1	0	1	6	1
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				

Publication List of the Labs: Multimedia and Virtual

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<b>Bounded Delay Performance Analysis for Distributed Multimedia Applications under Shared Virtual Environment</b> O. Wongwirat, S. Makhanov, and S. Ohara 3rd IEEE International Caracas Conference on Devices, Circuits and Systems (ICCDSCS'2000), 15-17 March 2000, Cancun, Mexico.	1				1			
2	<b>Synchronization Mechanism using Multiple-lock Checking Algorithm in Shared Virtual Environment with Haptic Force Feedback Control</b> O. Wongwirat, I. Burintramart, A. Walairacht, N. Chotikakamthorn, and S. Ohara SoftCom 2000.	1					1		
3	<b>Digital Watermarking Technique for Rotated and Scaled Image</b> S. Pholsomboon, and N. Chotikakamthorn NECTEC Journal. Vol. 7, No. 34, May-June, 2000, pp. 32-40.			1			1		
4	<b>Networked and Haptic Virtual Environment Research at MVLAB</b> N. Chotikakamthorn, C. Sathitwiriawong, O. Wongwirat and I. Burintramart 2000 Symposium on Theory and Applications of Communications and Information Technology, Aug. 24-25, 2000 Bangkok, pp. 26-31.		1					1	
5	<b>Digital Watermarking Technique for Degraded Low-resolution Document Image Authentication</b> N. Chotikakamthorn IEEE International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS'2000), Hawaii, November 2000.	1							1
6	<b>Improved Temporal Weight Spacing for Broadband Beamforming with Single Acoustic Interfering Signal</b> N. Chotikakamthorn, R. Phonkam, and K. Sorntham IEEE International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS'2000), Hawaii, November 2000.	1							1
7	<b>Seeing by drawing : Use of a force-feedback device for conveying basic geometric visual information</b> N. Chotikakamthorn, and N. Hongboonmee IEEE Int. Conf. Systems, Man, and Cybernetics, October 2000.	1							1
9	<b>Optimistic Synchronization Control Mechanism for Distributed Simulation Application in Shared Virtual Environment</b> O. Wongwirat, C. Sathitwiriawong, S. Ohara APSBC2000, KMITL, Thailand , 21-23 Dec. 2000	1							1
10	<b>Thai Flute Sound Synthesis Using Sinusoidal Plus Noise Model</b> S. Pholsomboon, and N. Chotikakamthorn NECTEC Journal. Vol. 7, No. 34, May-June, 2000, pp. 30-38			1			1		
11	<b>Structure and Communication Framework of Object for Physical-Based Simulation in Distributed Environment</b> I. Burintramart and S. Ohara School of Engineering of Tokai University			1					
12	<b>An Auto Graphics Layout Design System using Genetic Programming</b> A. Walairacht, I. Burintramart, O. Wongwirat, N. Chotikakamthorn and S. Ohara The 2000 Asia-Pacific Symposium on Broadcasting and Communications, pp. 23-27, Dec. 2000	1							1
13	<b>On Optimal Temporal Weight Spacing for Broadband LCMV Beamforming in the Presence of Signal Interference</b> N. Chotikakamthorn, K. Sorntham and R. Phonkam International Conference on Signal Processing(WCC-ICSSP2000), pp. 1887-1884 August 2000	1						1	
<b>Total Year 2000</b>		<b>8</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>5</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				

Publication List of the Labs: Multimedia and Virtual

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>A New Blur Identification Scheme</i> S.Makhanov, S. Vannakrairojn, S. Kondo TENCON'99, Cbeju, Korea, 1999, p. 1315-1318	1						1	
2	<i>An Adaptive Blur Identification Scheme</i> S. Makhanov, S. Vannakrairojn, S. Kondo IEEE International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS'99), Dec. 1999, Phuket, Thailand, pp. 565-568	1							1
3	<i>Modeling Internet Delay for Interactive Distributed Multimedia Applications</i> O. Wongwirat, N. Chotikakumthorn, and S. Ohara IEEE International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS'99), Dec. 1999, Phuket, Thailand, pp.521-524	1							1
4	<i>Independent-Object Communication Model for Physiccal Simulation</i> I. Burintramart and S. Ohara IEEE International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS'99), Dec. 1999, Phuket, Thailand, pp.617-620	1							1
5	<i>Data Hiding Technique for Electronic Document with Multi-Tier Alphabet</i> N. Artwarin and N. Chotikakumthorn IEEE International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS'99), Dec. 1999, Phuket, Thailand, pp.801-804	1							1
6	<i>Document Image Data Hiding Technique Using Character Spacing Width Sequence Coding</i> N. Chotikakumthorn 1999 IEEE Int. Conf. Image Processing, 24-28 Oct. 1999, Japan	1							1
7	<i>Data Hiding Technique for Electronic Document in Thai Language</i> N. Artwarin and N. Chotikakumthorn 22nd Electrical Engineering Conference (EECON 22), Bangkok, 1999, pp.385-388		1						1
8	<i>A Hybrid Blur Identification Scheme</i> S. Vannakrairojn, S. Kondo IEEE International Symposium on Intelligent Signal Processing and Communication Systems (ITC-CSCC' 99), pp. 1011-1014	1							1
<b>Total Year 1999</b>		<b>7</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>7</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>Electronic Document Data Hiding Technique using Inter-Character Space</i> N. Chotikakamthorn The 1998 IEEE Asia-Pacific Confernce on Circuits and System, November 24-27, 1998, Chiang Mai, Thailand	1							1
2	<i>Event Handing for Dynamic Communication Network of Objects in Virtuak</i> I. Burintramart The 1998 IEEE Asia-Pacific Confernce on Circuits and System, November 24-27, 1998, Chiang Mai, Thailand	1							1
3	<i>Variational Gridding Algorithms to Optimize a Tool-Path of a Fire-Axis Milling Machine</i> S. Makhanov The 1998 IEEE Asia-Pacific Confernce on Circuits and System, pp. 515-518, November 24-27, 1998, Chiang Mai, Thailand	1							1
4	<i>A New Adaptive Fuzzy Nonlinear Control Strategy</i> W. Kreesuradej The 1998 IEEE Asia-Pacific Confernce on Circuits and System, November 24-27, 1998, Chiang Mai, Thailand	1							1
<b>Total Year 1998</b>		<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				

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No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<b>Low Voltage CMOS Current Squaring Circuit without Body Effect</b> T. Janjaem, K. Dejhan, F. Cheevasuvit, S. Mitatha, S. Junnapiya, C. Nokyoo, P. Rugrachagarn, C. Soonyeeakan 2001 IEEJ International Analog VLSI Workshop, Forutne Hotel, Bangkok, Thailand, pp. 118-121, 14-15 May, 2001.	1					1		
2	<b>A Design of Low Voltage Supply Analog Multiplier Circuit</b> K. Dejhan, P. Buppha, F. Cheevasuvit, S. Mitatha, S. Junnapiya, S. Khuntaweethep, P. Rugrachagarn, C. Soonyeeakan 2001 IEEJ International Analog VLSI Workshop, Forutne Hotel, Bangkok, Thailand, pp. 128-130, 14-15 May, 2001.	1					1		
3	<b>A Mixed Mode CMOS Four-Quadrant Analog Multiplier Circuit Design</b> W. Leelasophit, K. Dejhan, F. Cheevasuvit, S. Mitatha, S. Junnapiya, S. Junnapiya, P. Rugrachagarn, C. Soonyeeakan 2001 IEEJ International Analog VLSI Workshop, Forutne Hotel, Bangkok, Thailand, pp. 135-137, 14-15 May, 2001.	1					1		
4	<b>Numerical Simulation of Surge Suppressor's Wiring Distance in Low-Voltage AC Power Circuit</b> S. Boonjan, S. Muangnoi and K. Dejhan Ladkrabang Engineering Journal, Vol. 18, No. 2, pp. 66-71, June 2001.						1		
5	<b>An Application of ATM Management Information Based and Simple Network Management Protocol for ATM Network Management</b> S. Tan-Angsanakool and K. Dejhan Ladkrabang Engineering Journal, Vol. 18, No. 2, pp. 90-95, June 2001.						1		
6	<b>Virtual Private Networking Design-Aided Performances Monitoring</b> W. Jongchanachawat and K. Dejhan Ladkrabang Engineering Journal, Vol. 18, No. 2, pp. 96-101, June 2001.						1		
7	<b>A Design of Monitoring Remote Area</b> K. Meesa-Ard, N. Sra-Ium and K. Dejhan Ladkrabang Engineering Journal, Vol. 18, No. 2, pp. 108-113, June 2001.						1		
8	<b>Implementation of Narrow-Band Kalman filter on Digital Signal Processor</b> P. Desyoo, S. Yimman and K. Dejhan Ladkrabang Engineering Journal, Vol. 18, No. 2, pp. 114-119, June 2001.						1		
9	<b>Design and Implementation of FPGA-Based for Voice Echo Canceller</b> W. Pakkamart and K. Dejhan Ladkrabang Engineering Journal, Vol. 18, No. 2, pp. 120-125, June 2001.						1		
10	<b>A Transient Saturation Schmitt Trigger</b> S. Limphaiboon, K. Dejhan and W. Kopayakin Ladkrabang Engineering Journal, Vol. 18, No. 2, pp. 126-130, June 2001.						1		
11	<b>A Transconductance Circuit with Rail-to-Rail Input Range</b> S. Piangpranthong and K. Dejhan Ladkrabang Engineering Journal, Vol. 18, No. 2, pp. 126-130, June 2001.						1		
12	<b>A High frequency and Full Swing BiCMOS Square wave generator</b> Sirivat Limpaiboon, Kobchai Dejhan, Somsak Mitatha, Chuae Nokyoo, Krit Angkaew, Chatcharin Soonyeeakan 9th International Symposium on Integrated circuit, Devices & Systems (ISIC 2001), Marina Mandarin, Singapore, pp.223-225, 3-5 Sep. 2001.	1						1	
13	<b>Low Voltage, Full swing Bootstrapped CMOS inverter circuit</b> Suphachai Leelasophit, Kobchai Dejhan, Somsak Mitatha, Chuae Nokyoo, Krit Angkaew, Chatcharin Soonyeeakan 9th International Symposium on Integrated circuit, Devices & Systems (ISIC 2001), Marina Mandarin, Singapore, pp.110-112, 3-5 Sep. 2001.	1						1	
14	<b>Characterization of Delay-Sensitive Traffic</b> S. Sangobtae, K. Dejhan Engineering Journal Chiang Mai University, Thailand, vol. 9, No. 1, pp. 73-83, March 2001						1		
15	<b>Efficiency Increasing System for Induction Motor with PLC</b> B. Mongkolworapol, C. Nokyoo and K. Dejhan Ladkrabang Engineering Journal, vol. 18, No. 1, pp. 13-18, March 2001						1		

**Publication List of the Labs: Communication Circuit Design**

16	<b>Multiformat Digital Audio to Analog Audio Converter</b> E. Prommas and K. Dejhan Ladkrabang Engineering Journal, vol. 18, No. 1, pp. 41-46, March 2001					1			
17	<b>A Full Swing, High Frequency BiCMOS Square Wave Generator</b> S. Limpaboon, K. Dejhan Ladkrabang Engineering Journal, vol. 18, No. 1, pp. 47-51, March 2001					1			
18	<b>Electronically Tunable Low-Voltage, Low-Power, Low-pass Filter Circuit</b> M. Kungern and K. Dejhan Ladkrabang Engineering Journal, vol. 18, No. 1, pp. 52-56, March 2001					1			
19	<b>A 60Hz Stop-Band Notch Filter Using Log-Domain Circuit</b> M. Kungern and K. Dejhan Ladkrabang Engineering Journal, vol. 18, No. 1, pp. 57-61, March 2001					1			
20	<b>Traffic Analysis an Improvement for Personal Communication Telephone</b> W. Tacchasuwan and K. Dejhan Ladkrabang Engineering Journal, vol. 18, No. 1, pp. 62-67, March 2001					1			
21	<b>System Analysis in ATM Virtual Connection for Enhancing Performance in ATM Network</b> R. Soonkool and K. Dejhan Ladkrabang Engineering Journal, vol. 18, No. 1, pp. 68-73, March 2001					1			
22	<b>Multi-Channel Images Clustering Using PCA-FCM Technique</b> S. Nadee and K. Dejhan Ladkrabang Engineering Journal, vol. 18, No. 1, pp. 80-85, March 2001					1			
23	<b>Patterns of Ground Reaction Force and Joint Angles During Termination of Human Gait</b> K. Vititayanon, P. Vanitchachavan, K. Dejhan 2001 International Technical Conference on Circuit/System, Computers and Communications, Hotel Clement Tokushima, Japan, pp. 1273-1275, 10-12 July, 2001	1							1
24	<b>A full-wave rectifier using a current conveyor and current mirrors</b> Adisak Monpapassorn, Kobchai Dejhan and Fusak Cheevasuvit International Journal of Electronics, Vol. 88, No. 7, pp. 751-758, July 2001.					1			1
25	<b>CMOS dual output current mode half-wave rectifier</b> Adisak Monpapassorn, Kobchai Dejhan and Fusak Cheevasuvit International Journal of Electronics, Vol. 88, No. 10, pp. 1073-1084, July 2001.					1			1
26	<b>Performances Analysis of Coherent DS-CDMA System Comparing with Single Tone Jamming and Pulse-Noise Jamming</b> K. Dejhan, A. Chatimala, A. Trirat, N. Arjith, F. Cheevasuvit, C. Soonyeechan 20001 International Symposium on Communication and Information Technology (ISCIT 2001), Chiang Mai Orchid Hotel, Chiang Mai, Thailand, pp. 409-412, 14-16 November, 2001.	1							1
27	<b>2.5 Volts Four-Quadrant Analog Multiplier</b> I. Chaisayun and K. Dejhan 20001 International Symposium on Communication and Information Technology (ISCIT 2001), Chiang Mai Orchid Hotel, Chiang Mai, Thailand, pp. 500-502, 14-16 November, 2001.	1							1
28	<b>Flexible PCA Architecture Realized on FPGA</b> W. Boonkumkiao, Y. Miyanaga, K. Dejhan 20001 International Symposium on Communication and Information Technology (ISCIT 2001), Chiang Mai Orchid Hotel, Chiang Mai, Thailand, pp. 590-593, 14-16 November, 2001.	1							1
29	<b>Machine Reliability Based PLC</b> W. Kanchana, C. Nokyo and K. Dejhan, Ladkrabang Engineering Journal, Vol. 18, No. 3, pp 37-42, September 2001.					1			1
30	<b>Programming Design for Level Controlling of the Dam via SCADA System</b> K. Aunpikul and K. Dejhan Ladkrabang Engineering Journal, Vol. 18, No. 3, pp 66-71, September 2001.					1			1



**Publication List of the Labs: Communication Circuit Design**

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<b>Computer Network Aided-Design Using Integrated Router for Total Traffic Monitoring</b> S. Sithisam-ang, and K. Dejhan Ladkrabang Engineering Journal, Vol.17, No. 1, March 2000			/	/	1			
2	<b>Convolution Code and Uncode Performances Analysis of DS-CDMA on Nakagami Fading Channel</b> P. Ruangsiripisan, K. Dejhan, and S. Junnapiya Ladkrabang Engineering Journal, Vol.17, No. 1, March 2000				/	1			
3	<b>Design of Distributed Arithmetic Digital Filter by State-Space Representation</b> S. Chiewpreecha and K. Dejhan Ladkrabang Engineering Journal, Vol.17, No. 1, March 2000				/	1			
4	<b>A Wide Dynamic Range Differential Voltage Current Conveyor(DVCC)</b> P. Phankrawee and K. Dejhan Ladkrabang Engineering Journal, Vol.17, No. 1, March 2000				/	1			
5	<b>A Fully Adjustable Hysteresis Ternary Schmitt Trigger Circuit Design</b> K. Angkeaw, S. Sumattavarakul, K. Dejhan, S. Junnapiya and V. Koprakayin Ladkrabang Engineering Journal, Vol.17, No. 1, March 2000				/	1			
6	<b>A Wide Dynamic Range CMOS Differential Voltage</b> K. Dejhan, S. Mitatha, F. Cheevasuvit and C. Soonyeeekan 2000 IEEJ International Analog VLSI Workshop, Stockholm, Sweden, pp. 134 _ 139, 2-3 June, 2000.	/					1		
7	<b>Interconnection Network Application for PCM-TDM frame</b> D. Chanrueng and K. Dejhan Ladkrabang Engineering Journal, Vol. 17, No. 2, pp. 30 _ 35, June 2000.				/		1		
8	<b>The Demonstration of Multi-Protocols Interface and Encapsulation Method via Frame Relay Network</b> T. Mapasathuro, K. Dejhan and C. Suwannawong Ladkrabang Engineering Journal, Vol. 17, No. 2, pp. 41 _ 46, June 2000.				/		1		
9	<b>An Implementation of Multi-Passband Digital Filter</b> S. Hornjan, S. Yimman, P. Desyoo and K. Dejhan Ladkrabang Engineering Journal, Vol. 17, No. 2, pp. 59 _ 64, June 2000.				/		1		
10	<b>Surge Suppressor in Low _ Voltage AC Power Circuit Based on Numerical Results</b> S. Muangnoi, K. Dejhan and S. Junnapiya Ladkrabang Engineering Journal, Vol. 17, No. 2, pp. 89 _ 95, June 2000.				/		1		
11	<b>Total Traffic Monitoring-Based Integrated Router for Computer Network Aided-Design</b> S. Sithisam-ang and K. Dejhan Engineering in the New Millennium, pp. EE-COM 1.37 _ EE-COM 1.41, 25 Jan., 2000.				/		1		
12	<b>the CMOS Current Squaring Circuit Using Low Voltage Supply and Independence from Body Effect</b> S. Hawhan, S. Hunyong, K. Dejhan and I. Chaisayun Ladkrabang Engineering Journal, Vol. 17, No. 3, pp. 1-4, September 2000.				/			1	





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No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<b>A CMOS voltage-controlled grounded resistor circuit</b> P. Prommee, K. Dejhan, F. Cheevasuvit and C. Soonyeckan 1999 IEEJ International Analog VLSI Workshop, pp.167-171, Taipei, Taiwan, May 5-7, 1999.	1					1		
2	<b>Single/Dual power supply differential input voltage four-quadrant analog multiplier using quarter-square technique</b> I. Chaisayun, K. Dejhan, F. Cheevasuvit and C. Soonyeckan 1999 IEEJ International Analog VLSI Workshop, pp.91-96, Taipei, Taiwan, May 5-7, 1999.	1					1		
3	<b>3-mode -operation of four-quadrant analog multiplier circuit with signal vector summation</b> I. Chaisayun, K. Dejhan, F. Cheevasuvit and C. Soonyeckan 1999 International Technical Conference on Circuits/Systems, Computers and Communications (ITC-CSCC'99), pp.418-421, Sado Island, Niigata, Japan, July 13-15, 1999.	1					1		
4	<b>Group classified of human face using wavelet transform, vector quantization and neural network</b> A. Somboonkaew, F. Cheevasuvit, S. Mitatha, K. Dejhan and C. Soonyeckan 1999 International Conference on Robotics Vision and Parallel Processing for Automation (ROVPIA'99), pp.112-116, Ipoh, Malaysia, July 16-18, 1999.	1					1		
5	<b>26 MHz CMOS RC oscillator circuit</b> K. Dejhan, A. Monpapassorn, F. Cheevasuvit, C. Tanwongvarl and C. Soonyeckan 1999 International Conference on Robotics Vision and Parallel Processing for Automation (ROVPIA'99), pp.667-672, Ipoh, Malaysia, July 16-18, 1999.	1					1		
6	<b>A design of class AB current mirror</b> K. Dejhan, A. Monpapassorn, F. Cheevasuvit, S. Wisetphanichkij and C. Soonyeckan 1999 International Conference on Robotics Vision and Parallel Processing for Automation (ROVPIA'99), pp.302-306, Ipoh, Malaysia, July 16-18, 1999.	1					1		
7	<b>A Current-controlled floating CMOS resistance circuit</b> K. Dejhan, F. Cheevasuvit, S. Mitatha, S. Leelasophit and C. Soonyeckan 1999 International Conference on Robotics Vision and Parallel Processing for Automation (ROVPIA'99), pp.270-275, Ipoh, Malaysia, July 16-18, 1999.	1					1		
8	<b>Mixed-voltage-controlled floating positive and negative CMOS resistance circuit</b> K. Dejhan, F. Cheevasuvit, S. Mitatha, T. Chumuang, V. Leelasophit and C. Soonyeckan 1999 International Conference on Robotics Vision and Parallel Processing for Automation (ROVPIA'99), pp.276-281, Ipoh, Malaysia, July 16-18, 1999.	1					1		
9	<b>Design and optimization of CMOS static latch</b> S. Wisetphanichkij, K. Dejhan, C. Sangrung, F. Cheevasuvit and C. Soonyeckan 1999 International Conference on Robotics Vision and Parallel Processing for Automation (ROVPIA'99), pp.315-321, Ipoh, Malaysia, July 16-18, 1999.	1					1		
10	<b>Complementary ternary logic circuit design</b> S. Wisetphanichkij, K. Dejhan, F. Cheevasuvit, and C. Soonyeckan 1999 International Conference on Robotics Vision and Parallel Processing for Automation (ROVPIA'99), pp.307-314, Ipoh, Malaysia, July 16-18, 1999.	1					1		
11	<b>Vector summation circuit design," Proc. of 1999 International Conference on Robotics Vision and Parallel</b> Automation (ROVPIA'99), pp. 262-269, Ipoh, Malaysia, July 16-18, 1999. K. Dejhan, F. Cheevasuvit, A. Chatimala, C. Soonyeckan and S. Sadubthummarak	1					1		
12	<b>A voltage- controlled linear CMOS transconductor circuit</b> K. Dejhan, F. Cheevasuvit, S. Mitatha, T. Chumuang, S. Cheingkinchan and C. Soonyeckan 1999 International Conference on Robotics Vision and Parallel Processing for Automation (ROVPIA'99), pp. 282-287, Ipoh, Malaysia, July 16-18, 1999.	1					1		
13	<b>A four-quadrant current mode analog multiplier circuit</b> K. Dejhan, F. Cheevasuvit, I. Chaisayun, T. Poosawad and C. Soonyeckan 1999 International Conference on Robotics Vision and Parallel Processing for Automation (ROVPIA'99), pp.288-294, Ipoh, Malaysia, July 16-18, 1999.	1					1		





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40	<i>Echo signal analysis of ground-based laser radar vertical axis</i> S. Lerkvaranyu, K. Dejhan and F. Cheevasuvit 1999 IEEE International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS'99), Phuket, Thailand, December 8-10, 1999.	1							1
41	<i>Signal Quality Studies in Video conference via HDSL</i> V. Donmai, K. Dejhan, V. Akkrarasomboon, R. Boonjunjan, N. Artrit Ladkrabang Engineering Journal, Vol. 16, No. 4, pp. 59-64, December 1999.				1				1
42	<i>E-mail to Fax Gateway</i> N. Patthanapong, K. Dejhan, S. Boonchucha, N. Artrit Ladkrabang Engineering Journal, Vol. 16, No. 4, pp. 65-69, December 1999.				1				1
43	<i>Performance Analysis of DS-CDMA on Nakagami Correlation Channel</i> N. Somboon, K. Dejhan, S. Junnapiya Ladkrabang Engineering Journal, Vol. 16, No. 4, pp. 70-75, December 1999.				1				1
44	<i>An Implementation of Parallel Real-Time Digital Signal Processing System</i> S. Homjun, S. Yimman, P. Snisanggam, K. Dejhan, M. Pongpooon Ladkrabang Engineering Journal, Vol. 16, No. 4, pp. 76-81, December 1999.				1				1
45	<i>Current-Mode Analog-to-Digital Converter using Active Current Mirror Design</i> B. Nobnob, P. Keenewananont, K. Dejhan, V. Kopayaemintn Ladkrabang Engineering Journal, Vol. 16, No. 4, pp. 82-86, December 1999.				1				1
46	<i>An Application of SNA Protocol over X.25 Protocol on Subarea Network</i> N. Jertjamcharas, K. Dejhan and C. Suwanwong, Research and Development Journal of the Engineering Institute of Thailand, Vol. 10, No. 2, 1999				1				1
47	<i>A clock feedthrough cancellation technique for BiCMOS current sample and hold circuit</i> K. Dejhan, et al., The 8th Interenational Symposium on IC Technology, Systems&Applications (ISIC-99), pp.521-524	1							
48	<i>High conversion time current-mode 8-bit analog-to-digital converter circuit</i> B. Nobnob, et al., The 8th Interenational Symposium on IC Technology, Systems&Applications (ISIC-99), pp.525-528	1							
49	<i>A design of ternary Schmitt trigger circuit</i> K. Angkaew et al., The 8th Interenational Symposium on IC Technology, Systems&Applications (ISIC-99), pp.282-285	1							
50	<i>A design of current-mode all-pass oscillator based on current conveyer circuit</i> K. Dejhan, et al., The 8th Interenational Symposium on IC Technology, Systems&Applications (ISIC-99), pp.6-9	1							
51	<i>A BiCMOS current-mode lossy ontegrator low-pass filter</i> K. Dejhan, et al., The 8th Interenational Symposium on IC Technology, Systems&Applications (ISIC-99), pp.279-281	1							
52	<i>Metastability Analysis of CMOS Latch</i> T. Tooprakai et al., The 8th Interenational Symposium on IC Technology, Systems&Applications (ISIC-99), pp.229-231	1							
53	<i>Efficiency Increasing of Calling Outside Telephone Exchange and Subscribers of Trunked Radio System</i> K. Noitonglek et al., Ladkrabang Engineering Journal, Vol. 16, No. 3, pp. 84-89, September 1999.				1				1
<b>Total Year 1999</b>		<b>32</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>0</b>	<b>29</b>	<b>2</b>	<b>16</b>
<b>No.</b>	<b>Papers</b>	<b>Conference</b>		<b>Journal</b>		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
		<b>Inter</b>	<b>Local</b>	<b>Inter</b>	<b>Local</b>				

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No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<b>Generated Reference Ground Control Points from SAR Image</b> S. Wisetphanichkij, K. Dejhan, F. Cheevasuvit, C. Pienvijarnpong and C. Soonyeeekan 19th Asia Conference on Remote Sensing, pp. F-9-1-F-9-6, November 16-20, 1998, Manila.	/					*	*	1
2	<b>An Improvement of Geometric Correction of Satellite Image</b> S. Wisetphanichkij, K. Dejhan, F. Cheevasuvit, C. Pienvijarnpong and C. Soonyeeekan, S. Hampipatpongsa 19th Asia Conference on Remote Sensing, November 16-20, 1998, Manila.	/							1
3	<b>Density and Temperature Profile in the Lower Atmosphere at KMITL, Thailand</b> S. Lerkvaranyu, K. Dejhan, F. Cheevasuvit, T. Itabe and K. Mizutani 19th Asia Conference on Remote Sensing, November 16-20, 1998, Manila.	/							1
4	<b>Moving Average Method for Time Series Lidar Data</b> S. Lerkvaranyu, K. Dejhan, F. Cheevasuvit 19th Asia Conference on Remote Sensing, November 16-20, 1998, Manila.	/							1
5	<b>High-Speed and Low-Power ECL Circuit Design Based on BiCMOS Technology</b> S. Wisetphanichkij, K. Dejhan, F. Cheevasuvit, C. Soonyeeekan The 1998 IEEE Asia-Pacific Conference on Circuit and Systems	/							1
6	<b>Performance Optimizations Simulations of BiCMOS Latch</b> S. Wisetphanichkij, K. Dejhan, F. Cheevasuvit, P. Tooprakai, T. Piyawaranont, K. Angkaew and C. Soonyeeekan The High Performance Computing Conference "HPC-Technology driver for Academia, Busin and Industry	/							1
7	<b>Multi-modal histogram linear contrast stretching for image enhancement</b> K. Wongsritong, P. Komonvipaht, F. Cheevasuvit, K. Dejhan, S. Chitwong and S. Mitatha Proc. of the 19th Asian Conference on Remote Sensing (ACRS'98), Manila, Philippines, November 16-20, 1998.	/							1
8	<b>Adaptive vector quantization coding on wavelet informations for data compression</b> K. Kittayaruasiriwat, F. Cheevasuvit, A. Somboonkaew, K. Dejhan, S. Mitatha and S. Wongkharn Proc. of the 19th Asian Conference on Remote Sensing (ACRS'98), Manila, Philippines, November 16-20, 1998	/							1
9	<b>Principal component analysis image for multi-resolution image</b> N. Hinsamooth, F. Cheevasuvit, K. Dejhan, S. Mitatha, S. Chitwong, A. Somboonkaew and S. Phasomkusolsilp Proc. of the 19th Asian Conference on Remote Sensing (ACRS'98), Manila, Philippines, November 16-20, 1998	/							1



**Publication List of the Labs: Mixed Signal Processing**

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>A Fully balanced Wide-Frequency Current-Tunable Phase-Lead All-Pass Filter</i> I. Seedadan and W. Surakamponorn KMUTT Research and Development Journal				1	1			
2	<i>Novel Translinear-Based Multi-Output FTFN</i> A. Jiraseree-amornkun, B. Chipipop and W. Surakamponorn The. 2001 IEEE International Symposium on Circuit and Systems, May 6-9, 2001, Sydney, Australia.	1					1		
3	<i>CMOS Multi-Output FTFN: Translinear Approach</i> A. Jiraseree-amornkun, W. Tangsrirat and W. Surakamponorn 2001 IEEE International Analog VLSI Workshop, May 14-15, 2001, Bangkok, Thailand.	1					1		
4	<i>A 100-MHz 1.5-mW Quarter-Square Four Quadrant analog Multiplier</i> B. Boonchu, W. Surakamponorn and P. Phadungkul 2001 IEEE International Analog VLSI Workshop, May 14-15, 2001, Bangkok, Thailand.	1					1		
5	<i>Fully Balanced High-Frequency Sinusoidal Quadrature Oscillator Using Current-Tunable Phase-Lead All-Pass Filters</i> B. Srisuchinwong, I. Seedadan and W. Surakamponorn 2001 IEEE International Analog VLSI Workshop, May 14-15, 2001, Bangkok, Thailand.	1					1		
6	<i>An Integrable CMOS-based Grounded-Capacitor True RMS-to-DC Converter</i> K. Keawdang, K. Kumwachara, C. Fongsamut, A. Jiraseree-amornkun and W. Surakamponorn 2001 IEEE International Analog VLSI Workshop, May 14-15, 2001, Bangkok, Thailand.	1					1		
7	<i>FTFN with Variable Current Gain</i> W. Tangsrirat, S. Unhavanich, T. Dumawipata and W. Surakamponorn TENCON 2001 IEEE Region 10 International Conference on Electrical and Electronic Technology, 19-22 August 2001, Singapore * Phuket Island * Langkawi Island.	1						1	
8	<i>Low-Voltage Current Multiplier Using Linear MOS Resistor</i> B. Boonchu and W. Surakamponorn 2001 International Symposium on Communications and Information Technology(ISCIT 2001), November 14 _ 16, 2001,Chiang Mai, Thailand	1							1
9	<i>Realization of Current-Mode FTFN -Based Lowpass Filter from The Optimal Sallen and Key Lowpass Filter(Saraga Design) Using Driving Point Impedance and Signal-Flow Graph(DPI/SFG) Method to Preserve the Sensitivities of the Origin Circuit,</i> B. Chipipop and W. Surakamponorn 2001 International Symposium on Communications and Information Technology(ISCIT 2001), November 14 _ 16, 2001, Chiang Mai, Thailand.	1							1
10	<i>Realization of Current-Mode FTFN -Based Lowpass Filter and Its Inverse Filter from The Optimal Sallen and Key Lowpass Filter(Saraga Design) Using RC:CR Dual Transformation to Preserve the Sensitivities of the Origin Circuit</i> B. Chipipop and W. Surakamponorn 2001 International Symposium on Communications and Information Technology (ISCIT 2001), November 14 _ 16, 2001, Chiang Mai, Thailand.	1							1



**Publication List of the Labs: Mixed Signal Processing**

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>Low-Voltage Current Mode Power Factor Function Generator</i> K. Kurnwachara and N. Fujii IEICE Trans. Fundamentals, Vol.E83-A, No.2, February 2000, pp.172-178.			1		1			
2	<i>A Realization of Current-Mode Biquadratic Filter Using Multiple- Output FTFNs</i> W. Tangsrirat and W. Surakamponorn IEEE APCCAS2000, Tianjin, China.	1							1
3	<i>Sinusoidal Frequency Doubler and Full-Wave Rectifier Using Translinear Current Control Conveyors</i> K. Anutahitunrat, W. Tangsrirat, V. Riewruja and W. Surakamponorn IEEE APCCAS2000, Tianjin, China.	1							1
4	<i>OTA-based Temperature- Insensitive Sinusoidal Frequency Tripler</i> P. Nipathahatapong, S. Chanarong K. Kumwatchara and W. Surakamponorn EECON-23rd, Nov. 23-24, 2000, Chiang Mai, Thailand		1						1
5	<i>A High-speed Max/Min circuit</i> T. Chimpalee, V. Riewruja, S. Supaph and W. Petchmaneelumka EECON-23rd, Nov. 23-24, 2000, Chiang Mai, Thailand		1						1
6	<i>Electronically Tunable Phase-Shifter Based on CMOS Technology</i> S. Supaph, V. Riewruja, A. Keawpoonsuk, T. Kumpeera and T. Lee EECON-23rd, Nov. 23-24, 2000, Chiang Mai, Thailand		1						1
<b>Total Year 2000</b>		<b>2</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>5</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				

**Publication List of the Labs: Mixed Signal Processing**

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>A Dual Translinear-Based True RMS-to-DC Converter</i> Wanlop Surakamponorn and Kiattisak Kumwachara IEEE Transaction on Instrumentation and Measurement, Vol. 47, No.2, April, 1999			1		1			
2	<i>On the Realization of Current-Mode FTFN-Based High-Pass Filter and its Inverse Filter</i> B. Chipipop and W. Surakamponorn 1999 IEEE International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS'99), Phuket, Thailand, December 8-10, 1999.	1							1
3	<i>A Realization of an Integrable GaAs-Based Current Conveyor</i> W. Tangsrirat and W. Surakamponorn 1999 IEEE International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS'99), Phuket, Thailand, December 8-10, 1999.	1							1
4	<i>An Integrable Two-Quadrant Current-Mode Logarithmic Circuit</i> P. Ouppariputtikul, K. Kumwachara, W. Tungsrirat, S. Unhawanich and T. Tumwipat 22th Electrical Engineering Conference (EECON-22), Kasertasrt University, Thailand, 1999		1						1
5	<i>A Current-Mode Analog Sinusoidal Frequency-to-Voltage Converter</i> E. Muangrodpai, W. Tangsrirat K. Kumwachara, W. Surakamponorn and S. Sanguanwai 22th Electrical Engineering Conference (EECON-22), Kasertasrt University, Thailand, 1999		1						1
6	<i>Relisation of Current-Mode FTFN-Based Inverse Filter</i> B. Chipipop and W. Surakamponorn Electronics Letters, IEE, Vol. 35, No. 9, pp. 690-692, 1999			1			1		
7	<i>An Integrated Current-Mode Root-n Circuit</i> W. Tangsrirat, W. Surakamponorn, V. Riewruja and K. Kumwachara International Symposium on Integrated Circuits, Devices&Systems, 8-10 September, 1999, Singapore	1							1
8	<i>Electronically Tunable ECCII-based Current-Mode Biquadratic Filter</i> W. Tangsrirat, W. Surakamponorn, K. Kumwachara and T. Dumawipata IEEE International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS'99) 8-10 December, 1999, Thailand	1							1
9	<i>OTA based precision full-wave rectifier</i> V. Riewruja et al., 22th Electrical Engineering Conference (EECON-22), Kasertasrt University, Thailand, 1999		1						1
10	<i>An Integrable Four Terminal Floating Nullor</i> W. Surakamponorn et al., 22th Electrical Engineering Conference (EECON-22), Kasertasrt University, Thailand, 1999		1						1
11	<i>A Peak Detector for Current Signal</i> V. Riewruja et al., 22th Electrical Engineering Conference (EECON-22), Kasertasrt University, Thailand, 1999		1						1
12	<i>An Integrable Four-Terminal Floating Nullor</i> A. Jiraseree-amornkun, B. Chipipop and W. Surakamponorn 22th Electrical Engineering Conference (EECON-22), Kasertasrt University, Thailand, 1999		1						1
<b>Total Year 1999</b>		<b>4</b>	<b>6</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>10</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				

**Publication List of the Labs: Mixed Signal Processing**

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>CMOS square-rooting circuit</i> W. Surakumpotorn, K.Kumwachra, V. Riewruja International Journal of Electronics			1			1		
2	<i>Temperature compensation of translinear current conveyor and OTA</i> W. Surakumpotorn, K.Kumwachra, V. Riewruja and C. Fongsamut International Journal of Electronics			1			1		
3	<i>Temperature-insensitive voltage-to-current converter and it's application</i> W. Surakampontorn, V. Riewruja, K. Kamwachara, C. Surawatpunya and K. Anuntahirunrat IEEE Trasaction and measurement			1				1	
4	<i>Inductance simulation using GaAs MESFETs</i> W. Tungsriray, W. Susrkampontron and V. Riewruja 1998 IEEE Asia-Pacific Conference on Circuits and System (APCCAS'98), pp. 9-12, November 24-27, 1998, Chiang Mai, Thailand	1							1
5	<i>Low voltage bipolar translinear-based temperature dependent current source and it's application</i> K. Kamwachara, N. Fujii and W. Susrkampontron 1998 IEEE Asia-Pacific Conference on Circuits and System (APCCAS'98), November 24-27, 1998, Chiang Mai, Thailand	1							1
6	<i>Sinusoidal Frequency Doubler and Full-wave Rectifier Using Translinear Current Conveyor</i> W. Surakampontorn, K. Aunthahirunrat, V. Riewruja Electronics Letters			1					1
7	<i>Power factor meter design based on CMOS technology</i> C. Jongkulsatidchai, W. Surakampontorn, K. Kumwachara, V. Riewruja 21th Electrical Engineering Conference (EECON-21), Nov. 12-13, 1998, Bangkok, Thailand		1						1
8	<i>Class Ab precision full-wave rectifier</i> A. Kaewponnsuk, V. Riewruja, C. fongsamut, 21th Electrical Engineering Conference (EECON-21), Nov. 12-13, 1998, Bangkok, Thailand		1						1
9	<i>Substrate Bias Voltage Generator Controller by CMOS Inverter</i> S. Saitoh, W. Tangsrirat, Y. Suzuki 1998 IEEE Asia-Pacific Conference on Circuits and System (APCCAS'98),pp. 279-282, November 24-27, 1998, Chiang Mai, Thailand	1							1
10	<i>New Double Charge-Pumping Circuit for High-Voltage Generation</i> M. Nozaki, W. Tangsrirat, Y. Suzuki, S. Saitoh, M. Teramoto and A. Yamaguchi 1998 IEEE Asia-Pacific Conference on Circuits and System (APCCAS'98),pp. 719-722, November 24-27, 1998, Chiang Mai, Thailand	1							1
<b>Total Year 1998</b>		<b>4</b>	<b>2</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>7</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				

Publication List of the Labs: Biomedical Signal and Image Processing

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>Volume rendering in medical image</i> J.Plodpai, S.Airphaiboon, S.Tungjitkusolmun, and T.Leawhatong ICOM'01, Kuala Lumpur, Malasia, Febuary, 2001	1				1			
2	<i>Hand printed character recognition using Weightless Artificial Neural Network</i> C. Tudtong, Y. Kidjaidure, P. Suwanna, and S. Kondo ICOM'01, Kuala Lumpur, Malaysia, February, 2001.	1				1			
3	<i>Smoothing of handwriting Thai characters using wavelet transform</i> B. Kieang-eea, M. Lohakarn, S. Airphaiboon, and Y. Kidjaidure ICOM'01, Kuala Lumpur, Malaysia, February, 2001.	1				1			
4	<i>Document skew detection algorithm</i> S. Lekngam, S. Airphaiboon, S. Tungjitkusolmun, and M. Matsuo ICOM'01, Kuala Lumpur, Malaysia, February, 2001.	1				1			
5	<i>The fuzzy C-means medical image clustering using initial cluster center</i> T. Wungsuk, M. Kantook, S. Airphaiboon, and M. Sangworasil ICOM'01, Kuala Lumpur, Malaysia, February, 2001.	1				1			
6	<i>Edge detection based on multiresolution DSCT</i> W. Kiatsuksri, S. Sookpotharam, S. Tungjitkusolmun, and M. Sangworasil ICOM'01, Kuala Lumpur, Malaysia, February, 2001.	1				1			
7	<i>Speed-up volume rendering in medical image using distance transform</i> W. Paiboonrattanakorn, T. Rattanametawee, K. Chitsakul, and M. Sangworasil ICOM'01, Kuala Lumpur, Malaysia, February, 2001.	1				1			
8	<i>Flow effect on lesion formation in RF cardiac catheter ablation</i> Cao, H., V. R. Vorperian, S. Tungjitkusolmun, J.-Z. Tsai, D. Haemmerich, Y. B. Choy, and J. G. Webster IEEE Trans. Biomed. Eng., 48, 425-433, April, 2001.			1			1		
9	<i>Classification of Magnetic Resonance Images Using Support Vector Machines</i> S. Sookpotharam, S. Tungjitkusolmun, S. Airphaiboon, M. Sangworasil 9th Internation Symposium on Integrated Circuits, Devices & Systems, September 3-5, 2001, Singapore, pp. 488-491.	1						1	
10	<i>Hepatic bipolar radio-frequency ablation between separated multiprong electrodes</i> D. Haemmerich, S. T. Staelin, S. Tungjitkusolmun, F. T. Lee, Jr, D. M. Mahvi, and J. G. Webster IEEE Trans. Biomed. Eng., 48: pp. 1145-1152, October, 2001.			1					1

**Publication List of the Labs: Biomedical Signal and Image Processing**

11	<i>Hand-writing character recognition using support vector Machine</i> S. Sookpotharom, M. Sangworasil, S. Airphaiboon, M. Matsuo 2001 International Symposium on Communications and Information Technology (ISCIT 2001), November 14 _ 16, 2001, Chiang Mai, Thailand.pp.63-66	I																	1
12	<i>3D Visualization from X-Ray Radiograph</i> C. Pintavirooj, C. Ninkaew, S. Tungitkusolmun, K. Hamamoto 2001 International Symposium on Communications and Information Technology (ISCIT 2001), November 14 _ 16, 2001, Chiang Mai, Thailand.pp.303-307	I																	1
13	<i>3D Sharp Recovery Based on Radon Transform</i> C. Pintaviroj, W. Withayachumnankol, M. Sangworsil, K. Chitsakul 2001 International Symposium on Communications and Information Technology (ISCIT 2001), November 14 _ 16, 2001, Chiang Mai, Thailand.pp.303-307	I																	1
14	<i>K-Nearest Average Distance FCM for MR Brain Image</i> C. Tudtong, Y. Kidjaidure, P. Suwanana 2001 International Symposium on Communications and Information Technology (ISCIT 2001), November 14 _ 16, 2001, Chiang Mai, Thailand.pp.303-307	I																	1
15	<i>The use of Vector Wuantization in Franctal Image Compression</i> T. Phanprasit, C. Nantajivakornchai, M. Sangworasil, S. Kondo 2001 International Symposium on Communications and Information Technology (ISCIT 2001), November 14 _ 16, 2001, Chiang Mai, Thailand.pp.303-307	I																	1
16	<i>3D Visualization from Radiographs</i> C. Ninkaew, C. Pintavirooj, M. Sangworasil and K. Chitsakul EECON-24, November 22-23, 2001, Bangkok, Thailand, pp. 1220-1225	I																	1
17	<i>Speed-up Volume Reconstruction in Medical Image using Bidirectional-Skipped Distance Transform</i> T. Rattanamethawee, K. Sepsirisuk, C. Pintavirooj, M. Sangworasil EECON-24, November 22-23, 2001, Bangkok, Thailand, pp. 1296-1300	I																	1
18	<i>Real-time ECG Compuression Techniqe using Wavelet Transform on MCS-51</i> S. Clydokjan, K. Chitsakul, M. Sangworasil EECON-24, November 22-23, 2001, Bangkok, Thailand, pp. 957-961	I																	1
19	<i>Image Fusion using Wavelet Transform</i> M. Kantook, S. Sirphaiboon, C. Nantajivakornchai, M. Sangworsil EECON-24, November 22-23, 2001, Bangkok, Thailand, pp. 1242-1247	I																	1
20	<i>Medical Image Data Capturing System Using FPGA</i> B. Kieang-eea, S Tungitkusolmun, S. Airphaiboon, and M. Sangworasil EECON-24, November 22-23, 2001, Bangkok, Thailand, pp. 945-950	I																	1
21	<i>3D Medical Image Reconstruction Technique of Highest Inensity Data</i> N. Banditwong, cl Tudtong, M. Sangworasil EECON-24, November 22-23, 2001, Bangkok, Thailand, pp. 1318-1322	I																	1
<b>Total Year 2001</b>		<b>13</b>	<b>6</b>	<b>2</b>	<b>0</b>	<b>7</b>	<b>1</b>	<b>1</b>	<b>12</b>										
<b>No.</b>	<b>Papers</b>	<b>Conference</b>		<b>Journal</b>		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>										
		<b>Inter</b>	<b>Local</b>	<b>Inter</b>	<b>Local</b>														

**Publication List of the Labs: Biomedical Signal and Image Processing**

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>The different Tissue types Identification in the distribution of MR Image using 3D scatter plot</i> Thurdsak LEAUHATONG, Surapan AIRPHAIBOON and Manas SANGWORASIL ISPACS 2000, Honolulu Hawaii, November 2000	1							1
2	<i>Fast Algorithm for Fractal Image Encoding</i> Siriluk PLONGTONG Surapan AIRPHAIBOON and Manas SANGWORASIL EECON-23, Nov. 23-24, 2000, Chiang Mai, Thailand		1						1
3	<i>Speed-up Volume Rendering in Medical Image using Distance Transform</i> Worathep PAIBOONRATANAKORN, Surapan AIRPHAIBOON and Manas SANGWORASIL EECON-23, Nov. 23-24, 2000, Chiang Mai, Thailand		1						1
4	<i>Electrical Impedance Tomography system</i> Kittipol CHITSAKUL and Manas SANGWORASIL EECON-23, Nov. 23-24, 2000, Chiang Mai, Thailand		1						1
<b>Total Year 2000</b>		<b>1</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>Single-character Segmentation for Handprinted Thai word</i> M. Lohakan, S. Airphaiboon and M. Sangworasil International Conference on Document Analysis and Recognition, Bangalore, India, September 1999	1						1	
2	<i>Continuous Surface Approximation and Editing using Fraction level of Wavelet Transform</i> Somsak Khemvivit, Theeranuth Roenkhitkam, Suraphan Airphaiboon and Prapakorn Suwanna 1999 IEEE International Symposium on Intelligent Signal Processing and Communication Systems, Phuket, Thailand, 1999.	1							1
3	<i>Three Planes Contour Technique for 3-D Medical Image Rendering</i> Worathep Paiboonrattankorn, Non Bandithwong, Manas Sangworasil and Pichai Kusirivanitchakorn 1999 IEEE International Symposium on Intelligent Signal Processing and Communication Systems, Phuket, Thailand, 1999.	1							1
4	<i>ECG Compression Based on Best Adapted Wavelet Packet</i> Worarat Pattara-amornkul, Yuttana Kitjaidure, Kitiphol Chitsakul and Manas Sangworasil 1999 IEEE International Symposium on Intelligent Signal Processing and Communication Systems, Phuket, Thailand, 1999.	1							1
5	<i>Efficient Convergence of FCM and AFCM for MRI Brain Section Clustering</i> Prasert Ausavarungsakul, Manas Sangwarasilp, Yuttana Kitjaidure, Moriyuki Matsuo 1999 IEEE International Symposium on Intelligent Signal Processing and Communication Systems, Phuket, Thailand, 1999.	1							1
6	<i>3-D Color Histogram Representation by Using 3-D Scattering and Two Techniques for Visualized Information Exploration</i> Thurdsak Leauhatong, Yuttana Kitjaidure, Manas Sangwarasilp and Shozo Kondo 1999 IEEE International Symposium on Intelligent Signal Processing and Communication Systems, Phuket, Thailand, 1999.	1							1
7	<i>ECG data Compression using the best Wavelet package</i> W. Patra-amornkul and M. Sangworasil Engineering faculty Journal, Assumption University, Bangkok, THAILAND, September 1999.				1				1
8	<i>Three Planes Contour Technique for 3-D Medical Image Volume Rendering</i> Worathep Paiboonrattankorn, Surapan AIRPHAIBOON and Manas Sangworasil Electrical Engineering Conference, EECON'22, Kasetsart University, Thailand, 1999.		1						1
9	<i>Continuous Surface Approximation and Editing using Fraction level of Wavelet Transform</i> Somsak Khemvivit, Suraphan Airphaiboon and Prapakorn Suwanna Electrical Engineering Conference, EECON'22, Kasetsart University, Thailand, 1999.		1						1
<b>Total Year 1999</b>		<b>6</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>8</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				

**Publication List of the Labs: Biomedical Signal and Image Processing**

No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				
1	<i>Data Scattering Algorithm for Multivariable Visualization Data</i> P. Ausavarungsakul APPCAS'98	1						1	
2	<i>Medical Image Clustering using the Fuzzy c means and Histogram Analysis</i> S. Paritokaporn ISPACS'98	1						1	
3	<i>ECG Signal Compression</i> V. Lethi KMITL Journal			1				1	
4	<i>3D Image Reconstruction</i> V. Paitulratanakorn KMITL Journal			1				1	
5	<i>Data Scattering Algorithms for Very Large Multivariable Data Visualization</i> P. Asawarungsakul APCCAS' 98 ChiangMai, Thailand	1							1
6	<i>The Fuzzy C-Mean Medical Image Clusterin Based on Histogram Analysis</i> S. Paritotokaporn ISPACS' 98 Melbourne	1							1
7	<i>3D Image Rendering using Wavelet Transform</i> S. Khemvivit 21th Electrical Engineering Conference (EECON-21), Nov. 12-13, 1998, Bangkok, Thailand		1						1
8	<i>Handwritten Character Analyssis using Wavelet Trasform</i> M. Lohakarn 21th Elcctrical Engineering Conference (EECON-21), Nov. 12-13, 1998, Bangkok, Thailand		1					1	
9	<i>3D Medical Image Reconstruction</i> W. Paiboonrattanakorn 21th Electrical Engineering Conference (EECON-21), Nov. 12-13, 1998, Bangkok, Thailand		1						1
<b>Total Year 1998</b>		<b>4</b>	<b>3</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>4</b>
No.	Papers	Conference		Journal		O1	O2	O3	O4
		Inter	Local	Inter	Local				

**Publication List of the Labs: Electromagnetic Compatibility**

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>The Analysis of conducted EMI Emissions from Class E ZVS Resonant Inverter for Induction Cooking Using Impedance Approach</i> T. Warit, V. Kinnaree, W. Khan-ngern and S. Nitta Machine Control and Power Electronics Conference 2001, Turkey	1					1		
2	<i>Conducted Emission Characteristic of Active Snubber Boost Converter</i> C. Tantasukarom, W. Khan-ngern and S. Nitta 2001 International Conference on Power Electronics and Drives Systems (PEDS'01), Bali, Indonesia	1						1	
3	<i>Design and Analysis of a Class E ZVS Resonant Inverter for an Induction Cooking Application</i> T. warit, R. Nabhazsan, A. Jangwanitert, V. Kinnaree, W. Khan-ngern EECON-24 Conference, Nov. 2001, pp.470-475.		1						1
<b>Total Year 2001</b>		<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>The Impact of Deadline Effect on Unwanted Harmonics Conducted Emission of PWM Inverters</i> S. Kaitwanidvilai, W. Khan-ngern The Second Asia-Pacific Conference on Environment Electromagnetics CEEM 2000	1				1			
2	<i>Classification PCB Configurations from Radiated EMI by Using Neural Network</i> K. Aunchaleevarapan, W. Khan-ngern, K. Paithoonwatanakij, Y. Preampraneerach The Second Asia-Pacific Conference on Environment Electromagnetics CEEM 2000	1				1			
3	<i>PWM-CADI An Interactive and efficient PWM Inverter Training</i> S. Kaitwanidvilai and W. Khan-ngern IEEE Power Engineering Society Winter Meeting (PES'00), Singapore, 24-27 January 2000	1				1			
4	<i>The Analysis of deadtime effect on Unbalanced load for Three Phase PWM Inverter</i> W. Khan-ngern The 2000 International Power Electronics Conference, Tokyo, Japan, April 3-7 2000.	1					1		
5	<i>Identification PCB Configuration from Radiated EMI by Using Neural Network</i> K. Aunchaleevarapan, K. Paithoonwatanakij, Y. Preampraneerach, W. Khan-ngern and S. Nitta 2000 Electromagnetic Environment Conference, Shanghai, China, May 3-7, 2000., pp. 105-110.	1					1		
6	<i>The Impact of Deadtime Effect on Unwanted Harmonics Conducted Emission of PWM Inverters</i> S. Kaitwanidvilai, W. Khan-ngern and M. Panarut 2000 Electromagnetic Environment Conference, Shanghai, China, May 3-7, 2000, pp. 232-237.	1					1		
7	<i>The analysis of harmonics emission due to dead time effect on three phase PWM inverter</i> W. Khan-ngern and S. Kiatwanidvilai TACIT 2000, KMTEL, Bangkok, Thailand, August 24-25 2000. pp. 62-66.	1						1	
<b>Total Year 2000</b>		<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>0</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				

**Publication List of the Labs: Electromagnetic Compatibility**

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<b>The Effect of Switching Frequency and Duty Cycle on SMPC Conducted Emission:Simulation and Experimental</b> S.Kaitwanidvial, K. Aunchaleevarapan, B. Huntawarakorn and Y. Prempraneerach International Power Engineering Conference'1999	1				1			
2	<b>Switch Mode Power Conductor</b> S.Kaitwanidvial, K. Aunchaleevarapan, B. Huntawarakorn and Y. Prempraneerach NECTEC Journal on 1st year, Vol 1, 1 March, 1999				1	1			
3	<b>Impact of Elevated trains on EMC Environment in Bangkok</b> W. Khan-ngern Thailand Engineering Journal, 51 th Year, Vol 12, pp 93-96, 12 December, 1999				1	1			
4	<b>Artfication Neural Network for Predicting PCB Configurations from Radiated EMI</b> K. Aunchaleevarapan, K. Paithoonwatanakij and Y. Prempraneerach 1999 IEEE International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS'99), Phuket, Thailand, 1999.	1							1
5	<b>Statistical Distributions of Electromagnetic Disturbances from Microwave Oven to Estimate the Interference with IMT-2000 System</b> S. Suwan, W. Khan-ngern, Y. Prempraneerach and Y. Yamanaka 1999 IEEE International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS'99), Phuket, Thailand, 8-10 December, 1999. pp.267-274	1							1
6	<b>EMC and Elevated Train</b> W. Khan-ngern The Engineering Technology Exhibition and Symposium 1999 organised by Engineering Institute of Thailand under the King's Patronage, 2nd November, 1999, pp. 129-134		1						1
<b>Total Year 1999</b>		<b>3</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
<b>Total Year 1998</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				

Publication List of the Labs: Microelectronics Device R&D

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>Low voltage CMOS active inductor design and its application to bandpass amplifier design</i> A. Thanachayanont VLSI2001, 18-20 April 2001, Taiwan	1					1		
2	<i>1.5 V CMOS fully-differential inductorless RF bandpass amplifier</i> A. Thanachayanont ISCAS2001, Sydney, 6-9 May 2001	1					1		
3	<i>Ultra Low Voltage CMOS V-I Converter and Its Application to RF Bandpass Amplifier Design</i> W.Sangnak, A.Thanachayanont 9th International Symposium on Integrated circuit, Devices & Systems (ISIC 2001), Marina Mandarin, Singapore, pp.223-225, 3-5 Sep. 2001.	1						1	
4	<i>Design and Implementation of a 100 MHZ CMOS Direct Digital Synthesiser with a 10-bit On-chip Digital-to-Analog Converter</i> A.Thanachayanont ,C, Meenakarn, T. Thongphuak and W.Sangnak 9th International Symposium on Integrated circuit, Devices & Systems (ISIC 2001), Marina Mandarin, Singapore, 3-5 Sep. 2001.	1						1	
5	<i>FPGA Design and Implementation of Fuzzy-Based Temperature Controller</i> S. Chantree and S. Choomchuay Journal of Engineering, Khon-Khen University			1				1	
6	<i>Problem in Propagation on Thai Television Recepted in Laos</i> K. Southysombath, P. Indarack, P. Chantamaly, M. Mangnomek, S. Ikeda, W. Phromphanich, S. Choomchuay, Y. Nakajima, and M. Moriya Int. Symposium on Communication and Information Technology, (ISCIT 2001), ChiangMai, Thailand, November 2001, pp.546 - 549	1							1
7	<i>Compactivity Improvement Using Slack Adjustment Technique</i> P. Mai-Dee and S. Choomchuay Int. Symposium on Communication and Information Technology, (ISCIT 2001), ChiangMai, Thailand, November 2001, pp.231-234	1							1
8	<i>Design and Implementation of a 100 MHZ CMOS Direct Digital Synthesiser with a 10-bit On-chip Digital-to-Analog Converter</i> A.Thanachayanont ,C, Meenakarn, T. Thongphuak and W.Sangnak (EECON-24) 22-23 November 2001		1						1
9	<i>Ultra Low Voltage CMOS V-I Converter and Its Application to RF Bandpass Amplifier Design</i> A.Thanachayanont ,C, Meenakarn, T. Thongphuak and W.Sangnak (EECON-24) 22-23 November 2001		1						1
10	<i>Composite Field Bit Serial-Parallel Multiplier</i> S. Pongyupinpanich and S. Choomchuay Information and Computer Engineering Workshop 2002, Jan. 17-18 (ICEP-2002)	1							1
11	<i>Voltage down converter (VDC) with two operation modes for TFT-LCD drivers</i> K. Hayashi, Y. Suziki, M. Yashida, A.Thanachayanont and S. Imai Int. Symposium on Communication and Information Technology, (ISCIT 2001), ChiangMai, Thailand, November 2001	1							1
12	<i>A high-Voltage Generator with a VDC for TFT-LCDs</i> K. Hayashi, Y. Suziki, M. Yashida, A.Thanachayanont and S. Imai International display workshop 2001	1							1
<b>Total Year 2001</b>		<b>9</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>7</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				

**Publication List of the Labs: Microelectronics Device R&D**

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>Wave-domino Pipelining by Using a Common Clock</i> P. Maidee and S. Choomchuay ISPACS-2000, Hawaii, USA. Dec 2000.	1							1
2	<i>Low voltage high Q tuneable CMOS active inductor</i> A. Thanachayanont TACIT 2000, KMUTT, Bangkok, Thailand, August 24-25 2000.	1						1	
3	<i>A 1.5-V High-Q CMOS Active Inductor for IF/RF Wireless Applications</i> A. Thanachayanont IEEE APCCAS 2000, Tienjin, China	1							1
4	<i>New Bias Voltage Generator for TFT-LCD's Drivers</i> M. Hirata, Y. Susuki, M. Yoshida, Y. Arayashiki, M. Teramoto, and S. Choomchuay IEICE Trans. Electron., Vol. E-83C, No. 10, October 2000, pp.1579-1583			1					1
5	<i>A Comparative Study of Various Methods for High-Voltage Generator</i> B.Sansoda, S. Choomchuay and Y. Susuki EECON-23, Chiang Mai Univ., November 2000		1						1
6	<i>An On Chip Negative High Voltage Generator</i> B. Sansoda, S. Choomchuay, and Y. Suzuki 2000 APSBC, Bangkok, Thailand	1							1
7	<i>VLSI Implementation of A Time Domain R-S Decoder</i> S. Choomchuay, and N. Lerdprasert 2000 APSBC, Bangkok, Thailand	1							1
8	<i>Class-AB VHF CMOS Active Inductor</i> S. Sae-kow and A. Thanachayanont The 3rd Colloquium on Active Filter: Circuit Theory and Design, the IEEE CAS Society, Thailand Chapter		1						1
9	<i>1-V Highly Linear Class AB CMOS Fully Differential Transconductor for High Frequency Applications</i> W. Sangnak and A. Thanachayanont The 3rd Colloquium on Active Filter: Circuit Theory and Design, the IEEE CAS Society, Thailand Chapter		1						1
<b>Total Year 2000</b>		<b>5</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>8</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				

**Publication List of the Labs: Microelectronics Device R&D**

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>High Performance DAC for Digital Television</i> A. Thananchayanont, A.j. Payne, P.Y.K. Chung and T. Bales Colloquim on Mixed-Signal IC Design: Technologies& Trends Beyond 2000, IEEE CAS Thailand Chapter, Oct 1999.	1						*	1
2	<i>A High-Voltage Generator Using CMOS Charge Pump</i> S. Choomchuay, M. Hirata, Y. Suzuki, M. Yoshida and M. Teramoto IEEE International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS'99), Phuket, Thailand, Dec. 1999	1							1
3	<i>An improved Simulated Annealing Algorithm for Circuit Partitioning</i> A. Yod-tein, S. Choomchuay and Y. Suzuki IEEE International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS'99), Phuket, Thailand, Dec. 1999	1							1
4	<i>An Improved Algorithm for VLSI Circuit Partitioning</i> A. Yod-tein, S. Choomchuay The 9th Interenational Symposium on IC Technology, Systems&Applications (ISIC-99), September, 1999, Singapore	1							1
<b>Total Year 1999</b>		<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>Algebraic Geometry Code Decoding Based on Chinese Remainder Theorem</i> P. Mai-dee, S. Choomchuay 1998 IEEE Asia-Pacific Conference on Circuits and System (APCCAS'98), November 24-27, 1998, Chiang Mai, Thailand	1							1
2	<i>Invisible Edge and Soft Tied in Copaction Strategy</i> P. Mai-dee, S. Choomchuay 1998 IEEE Asia-Pacific Conference on Circuits and System (APCCAS'98), November 24-27, 1998, Chiang Mai, Thailand	1							1
<b>Total Year 1998</b>		<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				

**Publication List of the Labs: Control and Machatronics**

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>Position Control of One-Axis Moving Table</i> Attapol Kanchanathep, Satean Tunyasrirut, Ritsu Kagawa, Jongkol Ngamwiwit ICMT 2001, June 6-8, 2001, Singapore, pp. 154-158.	1					1		
2	<i>Design of a Tagaki-Sugeno Fuzzy PI+D Controller for Linear Interval Process</i> Attapon Kanhawek, Jongkol Ngamwiwit, Suthee Phoojaruenchanachai Ladkrang Engineering Journal, Vol. 18, No. 1, pp. 7-12.			1			1		
3	<i>Derivative State Constraint Controller via CDM for Oscillation Systems</i> Noriyuki Komine, Kazuki Shibata, Taworn Benjanarasuth, Jongkol Ngamwiwit SICE2001, July 25-27, 2001, Nagoya, Japan	1						1	
4	<i>Self-Tuning Fuzzy Logic Controller for Direct Torque Control of Slip Energy Recovery System</i> Satean Tunyasrirut, Jongkol Ngamwiwit, Tadayoshi Furuya SICE2001, July 25-27, 2001, Nagoya, Japan	1						1	
5	<i>FFC Design for PI Flow Control System Design by CDM</i> Danupon Kumpanya, Taworn Benjanarasuth, Noriyuki Komine, Jongkol Ngamwiwit ICCAS2001, October 17-21, 2001, Cheiju, Korea	1							1
6	<i>Position Control by Fuzzy Logic Controller with Acceleration</i> Attapol Kanchanathep, Satean Tunyasrirut, Ritsu Kagawa, Jongkol Ngamwiwit ICCAS2001, October 17-21, 2001, Cheiju, Korea	1							1
7	<i>A Mamdani Fuzzy PID Controller for Processes with Small Dead Time</i> Kangwan Saensawasd, Ornlarp Saingaroorn Sumit Panaudomsup, Noriyuki Komine, Jongkol Ngamwiwit ICCAS2001, October 17-21, 2001, Cheiju, Korea	1							1
8	<i>Adaptive Phase Locked Loop for Process Control System</i> Somsak Wanchana, Taworn Benjanarasuth, Noriyuki Komine, Jongkol Ngamwiwit ICCAS2001, October 17-21, 2001, Cheiju, Korea	1							1
9	<i>PLL Incorporating Industrial Controller for Flow Control Systems</i> Somsak Wanchana, Taworn Benjanarasuth, Jongkol Ngamwiwit, Noriyuki Komine ISCIT2001, November 14-16, 2001, Chiang Mai, Thailand	1							1
10	<i>Weighting Matrices Selection of Derivative State Constrained LQ Regulator for Optimal Servo Systems</i> Noriyuki Komine, Taworn Benjanarasuth, Jongkol Ngamwiwit ISCIT2001, November 14-16, 2001, Chiang Mai, Thailand	1							1

**Publication List of the Labs: Control and Machatronics**

11	<i>FFC Design for PID Level Control System Designed by CDM</i> Danupon Kumpanya, Taworn Benjanarasuth, Jongkol Ngamwiwit Noriyuki Komine ISCIT2001, November 14-16, 2001, Chiang Mai, Thailand	I																		1
12	<i>Recursive Simultaneous Estimation of a Two-Link Direct Drive Manipulator with Great Variation Payload</i> Phomsuk Ratiroch-Anant, Jongkol Ngamwiwit, Masatoshi Anabuki, Hiroshi Hirata ISCIT2001, November 14-16, 2001, Chiang Mai, Thailand	I																		1
13	<i>Robust Fuzzy Logic Controller with Acceleration Converter for Position Control</i> Attapol Kanchanathep, Jongkol Ngamwiwit, Satean Tunyasrirut, Ritsu Kagawa ISCIT2001, November 14-16, 2001, Chiang Mai, Thailand	I																		1
14	<i>Global Stabilization of Uncertain Time-Delay Systems</i> Kamol Uahchinkul, Jongkol Ngamwiwit, Suthee Phoojaruenchanachai, ISCIT2001, November 14-16, 2001, Chiang Mai, Thailand	I																		1
15	<i>Design of Indirect Fuzzy Controller for Augmented Fuzzy System</i> Surakit Lertudomsuk, Jongkol Ngamwiwit, Noriyuki Komine ISCIT2001, November 14-16, 2001, Chiang Mai, Thailand	I																		1
16	<i>Feedforward Controller Design Incorporating PI Controller Designed by CDM for Level Processess</i> Danupon Kumpanya, Taworn enjayarasuth, Jongko Ngamwiwit, Noriyuki Komine EECON-24, November 22-23, 2001, Bangkok, Thailand		I																	1
17	<i>On-line Physical Model Identification of DC Motor Using Recursive Least Square Method</i> Jedsada Tangkadmongkolsuk, Panuwat Sripodok, Suthian Kiatunthorn, Nontawat Chuladaycha, Jongkol Ngamwiwit EECON-24, November 22-23, 2001, Bangkok, Thailand		I																	1
18	<i>Online Identification of DC Motor fed by Power Electronics Drive</i> Pisut Apichayakol, Nontawat Chuladaycha EECON-24, November 22-23, 2001, Bangkok, Thailand		I																	1
19	<i>Design of Indirect Fuzzy Logic controller by Pole Placement</i> Surakit Lertudomsuk, Jongkol Ngamwiwit EECON-24, November 22-23, 2001, Bangkok, Thailand		I																	1
20	<i>Design and Stability Analysis of a Takagi-Sugeno Fuzzy PI+D Control System</i> Attapon Kanhawek, Jongkol Ngamwiwit, Suthee Phoojaruenchanachai EECON-24, November 22-23, 2001, Bangkok, Thailand		I																	1
21	<i>Weighting Matrices of Derivative State Constrained Control via CDM for Oscillation Systems</i> Noriyuki Komine, Kazuki Shibata, Taworn Benjanarasuth, Jongkol Ngamwiwit JIASC2001, August 22-24, 2001, Japan	I																		1
<b>Total Year 2001</b>		15	5	0	1	0	2	2	17											
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4											
		Inter	Local	Inter	Local															

Publication List of the Labs: Control and Machatronics

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>Robust Stabilization of Uncertain Delayed Systems : Application to Model-Following Systems</i> K.Uahchinkul, J.Ngamwiwit, S.Phoojaruenchanachai SICE 2000 Japan.	1						1	
2	<i>Application of CDM to PIDA Control</i> P.Photong, D.Kumpanva, J.Ngamwiwit, N.Kmine, H.Hirata ASCC'2000. China	1						1	
3	<i>PI Controller Design with Feed forward by CDM for Level Processes</i> Kumpanva, J.Ngamwiwit, N.Kmine,T.Benianarasuth TENCON 2000. Malavsia.	1						1	
4	<i>Adaptive Fuzzy Sliding mode Controller for two Cascaded Tanks Level Control</i> N.Wauraitti,J.Ngamwiwit, Y.Prempranecrach TENCON 2000. Malavsia.	1						1	
5	<i>Adaptive Fuzzy-Neuro Controller for Speed of Wound Rotor Induction Motor with Slip Energy Recovery</i> S.Tunvasrirut, J.Ngamwiwit, T.Furuva, Y.Yamamoto TENCON 2000. Malavsia.	1						1	
6	<i>Torsional Resonance Supression via PIDA controller</i> C.U-thaiwasin,J.Ngamwiwit,Y.Prempranecrach, S.Suiitiorn TENCON 2000. Malavsia.	1						1	
7	<i>Sliding Mode Robust Control of Uncertain-delayed Systems: Generalize Transformation Approach</i> K. Uahchinkul, J. Ngamwiwit, S. hoojaruenchanachai. KACC 2000. Korea.	1							1
8	<i>Fuzzy-Neuro Controller for Speed of Slip Energy Recovery and Active Power Filter Compensator</i> Tunvasrirut, J. Ngamwiwit, T. Furuva, Y. Yamamoto KACC2000. Korea.	1							1
9	<i>Two-Link Manipulator Control using Indirect Adaptive Fuzzy Controller</i> N. Wauraitti, J. Ngamwiwit, T. Benianarasuth, H. Hirata, N. Komine KACC2000. Korea.	1							1
10	<i>Intelligent Auto-Tuning Adaptive Control of DC Motor System With Load Inertia of Great Variation</i> W. Khonghassok, V. Prijananii, P. Ratiroch-anant, J. Ngamwiwit, H. Hirata KACC2000. Korea.	1							1
11	<i>Experimental Study of Rotational Inverted Pendulum</i> N. Chanapan, S. Panaudomsap, J. Ngamwiwit, N. Komine KACC2000. Korea	1							1
12	<i>Intelligent Auto-Tuning for Adaptive Pole Placement Control System</i> H. Hirata, P. Ratiroch-anant, V. Prijananii, M. Anabuki, J. Ngamwiwit ICARCV2000. Singapore.	1							1
13	<i>Improved Intelligent Adaptive Control System by Auto-tuning Reference Model</i> P. Ratiroch-anant, H. Hirata, J. Ngamwiwit, V. Prijananii EECON23, Nov. 23-24, 2000. Chiang Mai, Thailand		1						1
14	<i>On-line Identification of DC Motor Control Parameters using Recursive Least-Square Method</i> J. Tanekadmongkolsuk, J. Ngamwiwit, S. Kiatsunthorn, Nontawat Chuladavcha, H. Hirata EECON23, Nov. 23-24, 2000. Chiang Mai, Thailand		1						1
15	<i>Power Factor Correction for a Single-Phase AC/DC Converter by Nonlinear-Carrier Control Techniaue</i> C. Tepsamran, N. Chuldavcha EECON23, Nov. 23-24, 2000. Chiang Mai, Thailand		1						1
16	<i>Adaptive PD-Robust Controller Design for CT-Scanner Gantry</i> W. Chaopramuakul, J. Ngamwiwit, S. Phoojaruenchanachai EECON23, Nov. 23-24, 2000. Chiang Mai, Thailand		1						1
<b>Total Year 2000</b>		<b>12</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>10</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				

**Publication List of the Labs: Control and Machatronics**

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>Independent multi-process control on single bus</i> Suthian Kiatsunthorn, Hassarungsri Siriwimonwan and Supakit Khemnimit Ladkrabang Engineering Journal, Vol. 16, No. 2, pp.84-89, June, 1999.			1				1	
2	<i>PLL in cooperated with PI Controller for Flow Control System</i> S. Wanchana, T. Benjanarasuth, N. Komine, and J. Ngamwiwit Proceedings of 1999 IEEE International Conference on Systems, Man and Cybernetics (SMC'99), Tokyo, Japan, October 12-15, 1999, pp. V-27-V-32.	1							1
3	<i>Auto-tuning Adaptive Control System using Fuzzy Inference</i> H. Hirata, P. Ratiroch-anant, V. Prijapanij, M. Anabuki and J. Ngamwiwit 1999 IEEE International Conference on Systems, Man and Cybernetics (SMC'99), Tokyo, Japan, October 12-15, 1999, pp. VI-196-VI-201.	1							1
4	<i>Adaptive Fuzzy PI Controller for Speed of Separately Excited DC Motor</i> S. Tunyasrirut, J. Ngamwiwit and T. Furuya 1999 IEEE International Conference on Systems, Man and Cybernetics (SMC'99), Tokyo, Japan, October 12-15, 1999, pp. VI-156-VI-161.	1							1
5	<i>Industrial Controllers Design by CDM for Level Processes</i> D. Kampanya, P. Photong, T. Benjanarasuth, N. Komine and J. Ngamwiwit 1999 IEEE International Conference on Mechatronic Technology (ICMT'99) Pusan, Korea, October 21-23, 1999, pp. 140-144.	1							1
6	<i>Level Control of Two Cascaded Tanks Using Indirect Adaptive Fuzzy Controller</i> N. Waurajitti, J. Ngamwiwit and Y. Prempraneerach 1999 IEEE International Conference on Mechatronic Technology (ICMT'99) Pusan, Korea, October 21-23, 1999, pp. 218-223.	1							1
7	<i>Application of Three-level Data in Neural Networks</i> S. Bunvaboon and J. Ngamwiwit 1999 IEEE International Conference on Mechatronic Technology (ICMT'99) Pusan, Korea, October 21-23, 1999, pp. 235-238.	1							1
8	<i>PLL Incorporating P Controller for Flow Control System</i> S. Wanchana, T. Benjanarasuth, N. Komine, and J. Ngamwiwit The 22nd Conference of Electrical Engineering (EECON-22), December 2-3, 1999 pp.179-181.		1						1
9	<i>Application of Three-level Data in Feedforward Neural Networks</i> S. Bunvaboon and J. Ngamwiwit the 22nd Conference of Electrical Engineering (EECON-22), December 2-3, 1999 pp. 175-178.		1						1
10	<i>Crane Movement Control with Adaptive Fuzzy Controller</i> A. Burananda and J. Ngamwiwit the 22nd Conference of Electrical Engineering (EECON-22), December 2-3, 1999, pp.183-186.		1						1
11	<i>On-line Parametric Estimation for DC Motor by Recursive Least-Squares Method</i> J. Ngamwiwit, S. Kiatsunthorn, N. Chuladaucha, P. Ratiroch-anant and T. Benjanarasuth the 22nd Conference of Electrical Engineering (EECON-22), December 2-3, 1999 pp.256-259.		1						1
12	<i>PID Controllers Design by CDM for Level Processes</i> P. Photong, J. Ngamwiwit, N. Komine and S. Manabe IEEE International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS'99), December 8-10, 1999, pp.415-418.	1							1
13	<i>Fuzzy Logic Control for Speed of Wound Rotor Induction Motor with Slip Energy Recovery</i> S. Tunyasrirut, A. Kanchanathep, J. Ngamwiwit and T. Furuya The 38th SICE Annual Conference(SICE'99) International Session Papers, Iwate University, July 28-30, 1999	1						1	
14	<i>Robust Stabilization of Uncertain Linear System with Distributed State Delay</i> S. Phoojaruenchanachai, K. Uahchinkul, J. Ngamwiwit and Prempraneerach IEICE Trans. Fundamentals, Vol. E.82-A, No. 9, pp.1911-1918, September 1999			1				1	
15	<i>Stringly Stable Controller Design for Self-Tuning Control System</i> H. Hirata, P. Ratiroch-anant, V. Prijapanij, M. Anabuki and J. Ngamwiwit Proceeding of the School of Engineering, Tokai University, Series E, Vol. 24, pp.17-26, 1999			1					1
16	<i>Achieving Strongly Stable Adaptive Control System using Intelligent Auto-tuning</i> P. Ratiroch-anant, V. Prijapanij, J. Ngamwiwit, M. Anabuki and H. Hirata IEEE Region 10 Conference on Multimedia Technology for Asia-Pacific Information Infrastructure (TENCON'99), Cheju, Korea, Vol. 1, pp.407-410, September 15-17, 1999	1						1	
<b>Total Year 1999</b>		<b>9</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>12</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				

**Publication List of the Labs: Control and Machatronics**

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>Achieving Strongly Stable Adaptive Pole Placement Control by Considering the Stability Indices</i> P. Ratiroch-anant, W. Surakamponorn, H. Hirata, V. Prijapanij and M. Anabuki School of Engineering Journal, Tokai University, Japan			1					1
2	<i>PIDA Controller Design by CDM</i> Photong, J. Ngamwiwit, K. Tirasesth, N. Komine and S. Manabe 98 Korea Automatic Control Conference (KACC)(4th Annual Conference of ICASE)	1							1
3	<i>Fuzzy Adaptive Pole Placement Control Considering Stability Index</i> P. Ratiroch-anant, W. Surakamponorn, H. Hirata, J. Ngamwiwit and M. Anabuki 1998 IEEE Asia Pacific Conference on Circuit and Systems : Microelectronics and Integration Systems	1							1
4	<i>PI Controller Design by CDM</i> P. Photong, J. Ngamwiwit, N. Komine and S. Manabe 21th Electrical Engineering Conference (EECON-21), Nov. 12-13, 1998, Bangkok, Thailand		1						1
<b>Total Year 1998</b>		<b>2</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				

**Publication List of the Labs: Electro-mechanical Engineering**

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>Performance Characteristic of an Elliptic Journal Bearing Lubricated with Liquid _ Solid Lubricants</i> M. Mongkolwongrojn Ladkrabang Engineering Journal, June 2001				1		1		
2	<i>Heat Distribution in Ultra-Thin Film Air Bearing of Magnetic Storage Devices</i> M. Mongkolwongrojn, M. Montiralaiporn The International Symposium of Communication and Information Technology,ISCIT-2001 14-16 Nov. 2001	1							1
3	<i>Optimal Control of Crane Movement with Flexible Rope</i> M. Mongkolwongrojn, S. Aunteng ISCIT2001, November 14-16, 2001, Chiang Mai, Thailand	1							1
4	<i>Multivariable Control System of Precision Air Conditioning Unit</i> M. Mongkolwongrojn, Y. Nualpeng The15th Mechanical Engineering Conference ME-NETT, 28-30 Nov.2001		1						1
5	<i>The Study of Wind Energy at Bangpakong District</i> M. Mongkolwongrojn, C. Ngamchokchai The15th Mechanical Engineering Conference ME-NETT, 28-30 Nov.2001			1					1
6	<i>Thermohydrodynamic Lubrication of Journal Bearing with Soybean-BasedOils</i> M. Mongkolwongrojn, U. Nujunkaew The15th Mechanical Engineering Conference ME-NETT,28-30 Nov.2001			1					1
7	<i>Thermal Model of Ultra-Thin Film Head Sliders in Magnetic Storage Devices</i> M. Mongkolwongrojn, M. Montiralaiporn The15th Mechanical Engineering Conference ME-NETT, 28-30 Nov.2001			1					1
8	<i>Static Characteristic of Ultra-Thin Film Head Sliders with Smooth off the Taper angle in Magnetic Storage System</i> M. Mongkolwongrojn, W. Gunnuang The15th Mechanical Engineering Conference ME-NETT, 28-30 Nov. 2001			1					1
9	<i>Optimum Design of the TruncatedCycloid Magnetic Head</i> M. Mongkolwongrojn, K. Wongseedakaew The15th Mechanical Engineering Conference ME-NETT, 28-30 Nov.2001			1					1
10	<i>Dynamic Analysis of Vehicle Cornering Behavior</i> M. Mongkolwongrojn, P. Mahapho The15th Mechanical Engineering Conference ME-NETT, 28-30 Nov.2001			1					1
<b>Total Year 2001</b>		<b>2</b>	<b>7</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>9</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				

**Publication List of the Labs: Electro-mechanical Engineering**

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>Theoretical Characteristic of Hydrodynamic Journal Bearings Lubricated with Soybean-based oils</i> M. Mongkolwongrojn, P. Arunmetta The 9th Nordic Symposium on Tribology, NORDTRIB2000, 11-14 June 2000, Finland	1					1		
2	<i>An Application of a Mathematical Programming Technique on Optimal Slider Head Characteristic in Magnetic Storage Devices</i> M. Lokitsangthong, M. Mongkolwongrojn The 9th Nordic Symposium on Tribology, NORDTRIB2000, 11-14 June 2000, Finland	1					1		
3	<i>Optimum Design of Heat Exchanger By Using Broyden-Fletcher-Goldferb-Shanno Method</i> M. Mongkolwongrojn, V. Funghareon Ladkrabang Engineering Journal, June, 2000				1		1		
4	<i>Theoretical Characteristic of Hydrodynamic Journal Bearings with Non-Newtonian Dilatant Lubricants</i> M. Mongkolwongrojn, K. Wongseedakaw Ladkrabang Engineering Journal, June, 2000				1		1		
5	<i>Optimum Design of a Magnetic Head Slider By Using Mathematical Programming Technique</i> M. Mongkolwongrojn, A. Chatsnga Ladkrabang Engineering Journal, June, 2000				1		1		
6	<i>Vibration Analysis of Helical Gears</i> M. Mongkolwongrojn, K. Wongseedakaw Ladkrabang Engineering Journal, June, 2000				1		1		
7	<i>Anti-Swing Movement of Crane with Flexible Rope</i> M. Mongkolwongrojn Mechanical Engineering Conference, Chiangmai University, Nov. 2-3, 2000		1						1
8	<i>Lubricating Characteristics of Journal Bearings with Soybean-Based Oil</i> M. Mongkolwongrojn, P. Arunmeatta Mechanical Engineering Conference Nov. 2-3, 2000 at Chiangmai University		1						1
9	<i>Lubricating Characteristic of Journal Bearing with Non _ Newtonian Dilatant Lubricants</i> M. Mongkolwongrojn, D. Panyakarn Ladkrabang Engineering Journal Dec. 2000				1				1
10	<i>The Effects of Change in Room Temperature on Flying Characteristic of Ultra-Low Air Film Head Sliders In Magnetic Devices</i> M. Mongkolwongrojn, S. Kwangkaomeng TACIT 2000, August 24-25, 2000, Bangkok, Thailand	1						1	
11	<i>Effects of Ambient Pressure Change on Static and Dynamic Characteristics of Magnetic Head Slider</i> S. Kwankaomeng, Y. Hattori, H. Hashimoto, M. Mongkolwongrojn ITC-Nagasaki 2000, October, 2000, Thailand	1							1
<b>Total Year 2000</b>		<b>4</b>	<b>2</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>6</b>	<b>1</b>	<b>4</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				

**Publication List of the Labs: Electro-mechanical Engineering**

No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>Performance characteristics on Lubrication between piston Ring and Cylinder wall with Non-Newtonian Lubricant</i> M. Mongkolwongrojn, K. Thammakosol The 12th International Pacific Conference on Automotive Engineering (IPC'12), May 24-26, 1999, Melbourne Australia	1					1		
2	<i>A Design and Development of a Two-degree of Freedom</i> M. Mongkolwongrojn Ladkrabang Engineering Journal, Vol. 2, June 1999			1			1		
3	<i>Wind Mill for Eastern Part of Thailand</i> M. Mongkolwongrojn, C. Knaumchokchai Ladkrabang Engineering Journal, Vol. 3, September, 1999			1				1	
4	<i>Two-degree of Freedom Touch Signal Probe for CMM</i> Ladkrabang Engineering Journal			1			1		
5	<i>Wind Energy at High Altitude in Eastern Part of Thailand</i> Ladkrabang Engineering Journal			1				1	
6	<i>Flying Characteristic Simulation of the Plan Wedge Type Slider Head and Rigid Disk in Magnetic Storage System</i> M. Mongkolwongrojn, S. Kwankaomeng The 13-th National Mechanical Engineering Conference, Dec. 1999, Pattaya, Thailand		1						1
7	<i>The Study of Performance Characteristic of Partial Journal Bearings with Non-Newtonian Lubricants</i> M. Mongkolwongrojn, K. Thammakosol The 13-th National Mechanical Engineering Conference, Dec. 1999, Pattaya, Thailand		1						1
8	<i>Balancing of Single Cylinder Engines for Minimize Shaking Force</i> M. Mongkolwongrojn, W. Gunnuang Ladkrabang Engineering Journal, Vol. 4, Dec. 1999			1					1
9	<i>Static Characteristic of a High Speed Journal Bearing with Non-Newtonian Lubricants</i> M. Mongkolwongrojn, U. Nujankaew Ladkrabang Engineering Journal, Vol. 4, Dec. 1999			1					1
10	<i>An Experimental Model Study on Air Flow over a Skytrain</i> M. Lokitsangtong The 13th National Mechanical Engineering Conference, Pattaya, Thailand December 1999		1						1
11	<i>Simplified Method for Approximating Higher Natural Frequencies of Vibrating Shafts</i> M. Lokitsangtong The 13th National Mechanical Engineering Conference, Pattaya, Thailand December 1999		1						1
<b>Total Year 1999</b>		<b>1</b>	<b>4</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>6</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				
1	<i>Steady stage Flying Characteristic of the Sliding Head and Rigid Disk interface in Magnetic storage systems</i> M. Mongkolwongrojn, S. Kwankaomeng, H. Hashimoto, Y. Hattori Mechanical Engineering Conference		1					1	
2	<i>Variable Slippage Clutch</i> M. Mongkolwongrojn, T. Anantapong Mechanical Engineering Conference		1						1
<b>Total Year 1998</b>		<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>
No.	Papers	Conference		Journal		Q1	Q2	Q3	Q4
		Inter	Local	Inter	Local				

**List of students graduated in year 1998-2001 (ReCCIT Member)**

No.	Laboratories		Student Name	Admitted Semester	Graduated Semester	Degree	Period (Year)	
							Full Time	Part Time
1	Mobile Communication	1	Mr. Viroj Tanachotchaiyakul	1/93	1/97	Master		4.5
		2	Mr. Suphot Ongsoranakomkul	1/93	2/97	Master		5
		3	Mr. Taworn Tanyongmasakul	2/96	2/98	Master	2.5	
		4	Miss Nutkhamon Namuang	1/96	2/98	Master	3	
		5	Mr. Thanate Pattanadapong	2/96	2/98	Master	2.5	
		6	Mr. Sakul Polwilai	2/96	2/98	Master	2.5	
		7	Mr. Pisit Boonsrimuang	1/98	2/00	Master	3	
		8	Mr. Chatchana Leangwongsun	1/98	2/00	Master	3	
		9	Mr. Roong Pongdoknai	2/96	2/00	Master		4.5
		10	Mr. Pichet Moungnoul	2/97	1/01	Doctor	4*	
2	Satellite Communication	1	Miss Yupin Pongprom	2/93	2/98	Master		5.5
		2	Mrs. Nipha Leelaruji	2/95	2/98	Master		3.5
		3	Miss Onanong Petnim	2/97	2/99	Master	2.5	
		4	Mr. Kamol Pho-ngarn	1/95	2/99	Master		5
		5	Mr. Natth Junkrob	2/96	1/01	Master		5
		6	Mr. Dusit Bosri	2/98	1/01	Master	3	
3	Wireless Communication	1	Mr. Wongsakorn Watcharananunt	2/95	1/98	Master	3	
		2	Mr. Ekajit Khoomwong	1/97	1/99	Master	2.5	
		3	Mr. Sutthipol Sutthasilp	1/93	2/99	Master		7
		4	Mr. Titipong Lertwiriayapapa	1/98	1/00	Master	2.5	
		5	Mr. Phaisan Ngamjanyaporn	1/98	2/00	Master	3	
		6	Mr. Chaiwat Kessuwan	1/98	2/00	Master		7
		7	Mr. Chaiwat Leekpai	1/98	2/00	Master	3	
		8	Mr. Anat Mearnchu	2/98	2/00	Master	2.5	
		9	Mr. Duang-arith Srimoon	2/98	2/00	Master		2.5
		10	Mr. Sompol Kosulvit	2/95	1/01	Doctor		6*
		11	Mr. Chuwong Phongcharoenpanich	1/98	1/01	Doctor	3.5*	
		12	Ms. Panadda Keowsawat	1/99	1/01	Master	2.5	
		13	Mr. Komsak Meksamoot	1/97	1/01	Doctor	4.5*	
		14	Ms. Wanlika Buasomboon	1/97	1/01	Master	2.5	
4	Signal Transmission System	1	Mr. Kalrath Khlaiduarg	1/95	1/99	Master	4.5	
		2	Mr. Rachu Puchalard	2/98	1/00	Master	2	
		3	Mr. Uthai Sritheeravirojana	1/95	2/00	Master		5.5
		4	Mr. Viroj Kawejan	1/94	2/00	Master		7
5	Communication Networks	1	Capt. Wannapa Prompibarn (Wrth)	1/91	2/97	Master		7
		2	Ms. Prapapan Kongwitseranee	2/91	1/98	Master		7
		3	Miss Amarisa Maneerung	1/96	2/98	Master	3	
		4	Miss Kanlaya Janchowna	2/97	2/00	Master	3.5	
		5	Miss Chompoonoot Tengcharoen	1/99	1/01	Master	2.5	
6	Information Science	1	Mr. Seri Pansang	1/92	1/97	Master		5.5
		2	Mr. Jiravuth Sinthuwanichsaid	2/93	2/97	Master	4.5	
		3	Mr. Suriyan Anuwak	2/92	1/99	Master		7
		4	Mr. Sakul Kammuanchai	2/92	1/99	Master		7
		5	Mr. Sommai Buayamsang	1/93	1/99	Master		7
		6	Mr. Makawan Chankoho	1/93	2/99	Master		7
		7	Ms. Bangorn Klabbankoh	1/97	2/99	Master	3	
		8	Mrs. Siriwan Phusakaew		2/99	Master		
		9	Mr. Vixinh Mounghsinh	1/97	1/00	Master	3.5	
		10	Mr. Yingyos Sriboonruang	2/99	1/01	Master	2	
		11	Mr. Suchin Arthan		1/01	Master		
		12	Mr. Paitoon Nuchjang	1/99	2/01	Master	3	

### List of students graduated in year 1998-2001 (ReCCIT Member)

No.	Laboratories		Student Name	Admitted Semester	Graduated Semester	Degree	Period (Year)	
							Full Time	Part Time
7	Multimedia and Virtual Research	1	Miss Nongnuch Artwarin	1/97	2/00	Master	4	
		2	Miss Siripom Phosomboon	1/97	2/00	Master		
		3	Mr. Surachai Danainalumol	1/98	1/01	Master	3.5	
		4	Mr. Rungkam Siricharoenchai	1/97	1/01	Master	4.5	
8	Communication Circuit Design	1	Mr. Vitee Srimongkol	1/95	1/99	Master	4.5	
		2	Mr. Chauchai Netbuth	1/94	2/98	Master	5	
		3	Mr. Winai Worawat	1/94	2/98	Master	5	
		4	Mr. Siripong Chaysin	1/93	2/98	Master		6
		5	Mr. Nuttee Chuichay	2/95	1/99	Master	4	
		6	Miss Thitinart Piyawaranont	1/96	1/99	Master	3.5	
		7	Mr. Samphan Pampichai	1/96	1/99	Master	3.5	
		8	Mr. Pichet Srisanggam	2/97	2/99	Master	2.5	
		9	Mr. Pipat Tarkiatikul	1/97	2/99	Master	3	
		10	Mr. Kamol Noitonglek	1/96	2/99	Master	4	
		11	Mr. Pattharasit Phankrawee	1/93	2/99	Master		7
		12	Mr. Swut Boozaya-Angool	1/93	2/99	Master		7
		13	Mr. Suchart Sitthisam-ang	1/97	2/99	Master	3	
		14	Mr. Boonying Nobnob	1/98	2/99	Master	2	
		15	Miss. Wanida Akeburanawat	1/97	2/99	Master	3	
		16	Mr. Pawin Phongsam-ang	1/93	2/99	Master		7
		17	Mr. Amnuay Taosan	1/93	2/99	Master		7
		18	Mr. Prarinya Ruangsiripaisam	1/98	2/99	Master	2	
		19	Miss. Narumol Sombun	1/98	2/99	Master	2	
		20	Mr. Krit Angkeaw	2/98	1/00	Master	2	
		21	Mr. Siri Konthong	2/98	1/00	Master		6
		22	Mr. Sontaya Muangnoi	1/98	2/00	Master	3	
		23	Mr. Prapun Trijarun	2/94	2/00	Master		6.5
		24	Mr. Damrong Chanrueng	1/96	2/00	Master		5
		25	Mr. Ekachai Promnas	1/94	2/00	Master		7
		26	Mr. Pairode Cheevaphrauthinun	1/96	2/00	Master		5
		27	Mr. Ruttirong Soonkool	1/99	2/00	Master	2	
		28	Mr. Saneh Sangobtae	1/98	1/01	Master	3.5	
		29	Mr. Somjit Nadee	1/96	2/00	Master		5
		30	Mr. Wirote Jongchanachawat	2/97	1/01	Master	4	
		31	Mr. Wutthichai Kanjana	2/94	1/01	Master		7
9	Mixed Signal Processing	1	Mr. Chalermpan Fongsamut	1/96	2/98	Master	3	
		2	Mr. Narin Tamnarugwattana	2/96	2/99	Master	3.5	
		3	Mr. Chaiwat Jongkunsatitchai	2/94	2/99	Master		5.5
		4	Mr. Amorn Jiraseree-amornkun	1/98	2/00	Master	3	
		5	Ms. Patcharaporn Nipathahathapong	2/99	1/01	Master	2	
		6	Mr. Pattarachai Ouppariputtikul	1/99	1/01	Master	2.5	
10	Biomedical Signal and Image Processing	1	Mr. Chinapat Nantajiwakornchai	2/93	2/98	Master		5.5
		2	Mr. Sahat Fakorn	1/93	1/99	Master		6.5
		3	Mr. Somsak Khemvivit	1/97	1/99	Master	2.5	
		4	Miss. Worarat Patra-amornkul	1/98	2/00	Master	3	
		5	Mr. Prasert Assavarungsakul	1/98	2/00	Master	3	
		6	Mr. Worathep Paiboonratanakorn	1/98	2/00	Master	3	
		7	Mr. Peera Leawprasertporn	2/98	2/00	Master	2.5	
		8	Mr. Sakapan Clydokjan	1/99	2/01	Master	3	
		9	Mr. Kasemsuk Sepsirisuk	1/99	1/01	Master	2.5	
11	Electromagnetic Compatibility	1	Mr. Somyot Kiatwanitwilai	1/98	2/99	Master	2	

### List of students graduated in year 1998-2001 (ReCCIT Member)

No.	Laboratories		Student Name	Admitted Semester	Graduated Semester	Degree	Period (Year)	
							Full Time	Part Time
12	Microelectronics Device R&D	1	Mr. Weera Peng-chan	1/92	2/97	Master		6
		2	Ms. Apiradee Yodtean	1/96	1/01	Master		5.5
13	Control and Machatronics	1	Mr. Kamol Auechinkul	1/94	2/97	Master	4	4.5
		2	Mr. Apisit Srikaewboworn	1/94	2/98	Master	4	
		3	Mr. Hussarungsri Siriwimonwon	2/95	1/99	Master	4	
		4	Ms. Phomsuk Ratriroch-anant	2/95	2/99	Master		
		5	Mr. Puvarin Nilrangsri	2/95	2/99	Master	4.5	
		6	Mr. Somsak Wanchana	1/98	2/99	Master	2	
		7	Mr. Voottikorn Choapramuakul	1/99	2/00	Master	2	
		8	Mr. Attapon Kanhawek	1/99	2/01	Master	3	
		9	Miss Patu Photong	2/98	2/01	Master	3.5	
14	Electro-mechanical Engineering	1	Mr. Chatchai Aiumpornsini	2/94	1/98	Master	4	7
		2	Mr. Srawin Thunhikorn	1/94	1/99	Master	5.5	
		3	Miss Sudarat Kwankaomeng	1/98	1/00	Master	5.5	
		4	Mr. Prapat Arumetta	2/98	2/00	Master	2.5	
		5	Mr. Sumit Aunteng	1/98	1/01	Master	3.5	
		6	Miss Yupaporn Nualpeng	2/94	1/01	Master		
Average year to get master degree							3.14	5.03

## List of Thai counterpart of ReCCIT in year 2002

No.	Laboratories		Name	Qualification			Remark
				DR.	MS.	B.	
1	<b>Mobile Communication Laboratory</b>						
	<i>Leader</i>	1	Assoc.Prof.Dr. Tawil Paungma	1			
	<i>Assistant-Leader</i>	1	Prof. Manoon Sukkasem		1		
	<i>Counterpart</i>	1	Lecturer Pisit Boonsrimuang			1	
		2	Dr. Phichet Moungnoul	1			
		3	Lecturer Thanate Pattanatadapong		1		
		4	Mr. Sayan Puangneon			1	
5	Mr. Niwat Yenkae			1			
6	Mr. Sithichai Dejporn			1			
2	<b>Satellite Communication Laboratory</b>						
	<i>Leader</i>	1	Assoc. Prof. Narong Hemmakorn		1		
	<i>Assistant-Leader</i>	2	Asst. Prof. Nipha Leelarui		1		
	3	Dr. Suthichai Noppanakeepong	1				
	<i>Counterpart</i>	4	Mr. Thikumporn Boonchuk			1	
5		Ms. Khajitphan Makaratat			1		
3	<b>Wireless Communication Laboratory</b>						
	<i>Leader</i>	1	Assoc.Prof.Dr. Monai Krairiksh	1			
	<i>Assistant-Leader</i>	1	Asst. Prof. Dr. Sompol Kosulvit	1			
	<i>Counterpart</i>	2	Dr. Chuwong Phongcharoenpanich	1			
1		Mr. Anat Mearnchu		1			
4	<b>Signal Transmission System Laboratory</b>						
	<i>Leader</i>	1	Assoc. Prof. Dr. Kanok Janchitrapongvej	1			
	<i>Assistant-Leader</i>	1	Asst. Prof. Dr. Attasit Lasakul	1			
	<i>Counterpart</i>	2	Assoc. Prof. Ornlarp Sangaroon		1		
		1	Asst. Prof. Noppin Anantrasirichai		1		
		2	Assoc. Prof. Chawalit Benjangkprasert		1		
3		Assoc. Prof. Prakrit Tangtisanon		1			
4	Ms. Pornpimol Tapchai			1			
5	<b>Communication Networks Laboratory</b>						
	<i>Leader</i>	1	Assoc. Prof. Dr. Ruttikorn Varakulsiripunth	1			
	<i>Assistant-Leader</i>	1	Asst. Prof. Dr. Chotipat Pornavalai	1			
	<i>Counterpart</i>	1	Assoc. Prof. Dr. Suvipol Sitticheevapak	1			
	2	Lecturer Akkarin Khunkitti		1			
	3	Lecturer Polchai Chotiprayanakul		1			
	4	Lecturer Mayree Lertwatchakul		1			
5	Mr. Noppadol Maneerat		1				
6	Ms. Chompunut Tengcharoern		1				
6	<b>Information Science Laboratory</b>						
	<i>Leader</i>	1	Assoc.Prof.Dr. Ouen Pin-ngern	1			
	<i>Assistant-Leader</i>	1	Asst. Prof. Dr. Boontee Kluatrachoo	1			
	<i>Counterpart</i>	2	Dr. Visit Hirankitti	1			
		3	Dr. Somsak Varairatch	1			
1		Mr. Piriya Yaowapanee			1		
7	<b>Multimedia and Virtual Research Laboratory</b>						
	<i>Leader</i>	1	Asst. Prof. Dr. Nopporn Chotikakamthorn	1			
	<i>Assistant-Leader</i>	1	Dr. Chanboon Sathitwiriya Wong	1			
	<i>Counterpart</i>	1	Lecturer Olam Wongwirat		1		
2		Lecturer Isara Burintramat		1			
3		Lecturer Worawit Weerapan			1		
8	<b>Communication Circuit Design Laboratory</b>						
	<i>Leader</i>	1	Assoc.Prof.Dr. Kobchai Dejhan	1			
	<i>Assistant-Leader</i>	1	Prof. Dr. Wiwat Kiranon	1			
	<i>Counterpart</i>	2	Assoc. Prof. Itthichai Arungsrisangchai		1		
		1	Lecturer Somkiat Lerkvaranyu		1		
2		Mr. Charemkiat Pochaiya			1		

No.	Laboratories		Name	Qualification			Remark
				DR.	MS.	B.	
9	<b>Mixed Signal Processing Laboratory</b>						
	<i>Leader</i>	1	Asst.Prof.Dr. Kiattisak Kumwachara	1			
	<i>Assistant-Leader</i>	1	Prof. Dr. Wanlop Surakampontrorn	1			
		2	Assoc. Prof. Dr. Vanchai Riewruja	1			
	<i>Counterpart</i>	1	Mr. Chalernpun Fongsamut		1		
		2	Mr. Amorn Jiraseree-amornkun		1		
		3	Lecturer Kongsak Anuntahirumrut		1		
4		Lecturer Worapong Tangsritut		1			
10	<b>Biomedical Signal and Image Processing Laboratory</b>						
	<i>Leader</i>	1	Assoc. Prof. Dr. Manas Sangworasil	1			
	<i>Assistant-Leader</i>	1	Assoc. Prof. Dr. Surapan Airphaiboon	1			
		2	Dr. Supan Tungjitkusolmun	1			
	<i>Counterpart</i>	1	Dr. Yuttana Kidjaidure	1			
		2	Dr. Chuchart Pintavirooj	1			
		3	Dr. Kittiphol Chitsakul	1			
4		Lecturer Chinnapat Nantajivakornchai		1			
5	Mr. Chet Thadtong			1			
11	<b>Electromagnetic Compatibility Laboratory</b>						
	<i>Leader</i>	1	Asst.Prof.Dr. Werachet Khan-ngern	1			
	<i>Assistant-Leader</i>	1	Assoc. Prof. Dr. Yothin Prempraneerach	1			
	<i>Counterpart</i>	1	Assoc. Prof. Siriwat Potivejkul		1		
2		Mr. Komkrit Karanun			1		
12	<b>Microelectronics Device R&amp;D Laboratory</b>						
	<i>Leader</i>	1	Assoc. Prof. Dr. Somsak Choomchuay	1			
	<i>Assistant-Leader</i>	1	Asst. Prof. Dr. Apinunt Thanachayanont	1			
	<i>Counterpart</i>	1	Asst. Prof. Dr. Teompong Petchakul	1			
		2	Assoc. Prof. Somsak Cheirsirikul		1		
3		Lecturer Surasak Niumchareon		1			
4	Mr. Seree Chantree			1			
13	<b>Control and Machatronics Laboratory</b>						
	<i>Leader</i>	1	Assoc. Prof. Dr. Jongkol Ngamwiwit	1			
	<i>Assistant-Leader</i>	1	Assoc. Prof. Viphan Prijapanij		1		
		2	Assoc. Prof. Suthian Kiatsunthor		1		
	<i>Counterpart</i>	1	Dr. Nontawat Chuladaycha	1			
		2	Asst. Prof. Phornsuk Ratiroch-anant		1		
3		Lecturer Taworn Benjanarasuth		1			
4	Mr. Don Isarakorn			1			
14	<b>Electro-mechanical Engineering Laboratory</b>						
	<i>Leader</i>	1	Assoc. Prof. Dr. Mongkol Mongkolwongrojn	1			
	<i>Assistant-Leader</i>	1	Asst. Prof. Ming Lokitsangthong		1		
		2	Asst. Prof. Chamlong Prabkaew		1		
<i>Counterpart</i>	1	Mr. Mesa Montiralaiporn			1		
<b>Total number of ReCCIT counterpart for research</b>				<b>36</b>	<b>32</b>	<b>15</b>	
<b>Grand Total</b>				<b>83</b>			

15	<b>Administrative and Mangement Office</b>						
	<i>Head</i>	1	Mrs. Vimolluck Thianjew			1	Government Service Officer
	<i>Staff</i>	1	Ms. Usa Boochapan			1	Temporary Employee
		2	Ms. Wantiwa Wannawas			1	Temporary Employee
3		Ms Jularat Jatuten			1	Temporary Employee	
<b>Total number of ReCCIT A&amp;M Office Staff</b>				<b>0</b>	<b>0</b>	<b>4</b>	
<b>Grand Total</b>				<b>4</b>			