



**SOUTH EAST ASIAN MATHEMATICAL SOCIETY**

**SEAMS SCHOOL PROPOSAL**

# **Some Aspects of Representation Theory**

Universitas Gadjah Mada  
09-17 November 2015

**Organized by**

Algebra Research Group, Universitas Gadjah Mada  
Indonesian Algebraic Society

2015

## SEAMS SCHOOL PROPOSAL

1. The proposed title, place and dates of the SEAMS School

Title of the SEAMS School	: <b>Some Aspects of Representation Theory</b>
Place	: Universitas Gadjah Mada
Dates	: 09 -17 November 2015

2. Organizers (write the names, place of work, and email address, if you have more than two then add the necessary lines)

1. Name	: Sri Wahyuni
Institution	: Universitas Gadjah Mada
Email and Phone	: <a href="mailto:swahyuni@ugm.ac.id">swahyuni@ugm.ac.id</a> phone: ++62-274-552243
2. Name	: Indah Emilia Wijayanti
Institution	: Universitas Gadjah Mada
Email and Phone	: <a href="mailto:ind_wijayanti@ugm.ac.id">ind_wijayanti@ugm.ac.id</a> phone: ++62-274-552243

3. Short Description of the Scientific Content (max 100 words)

<p>The aim of this School is to introduce the students to the fundamental theories and research in “Representation Theory”. The school will focus on the following courses :</p> <ol style="list-style-type: none"><li>1. <b>“Introduction to Representation Theory (IRT)”</b> Speakers: Intan Muchtadi (ITB) and Sri Wahyuni (UGM)</li><li>2. <b>“Introduction of Geometric Methods in Representation Theory (IGR)”</b>. Speakers: Michel Jambu (Univ. Of Nice) and Dellavitha Nasution (ITB)</li><li>3. <b>“Representarion Theory of Finite Group (RFG)”</b> Speakers: Bas Edixhoven (Univ. Leiden)</li><li>4. <b>“Representations of Leavitt Path Algebras (RLA) ”</b> Speakers: Indah Emilia Wijayanti (UGM)</li><li>5. <b>“Representation Theory of Lie Groups (RLG)”</b> Speakers: Zhu Cheng Bo (NUS Singapore)</li></ol>
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4. The speakers of the school (names, address, emails)

<ol style="list-style-type: none"><li>1. Dr. Intan Muchtadi, ITB, Indonesia, <a href="mailto:ntan@math.itb.ac.id">ntan@math.itb.ac.id</a></li><li>2. Dr. Dellavitha Nasution, Dr <a href="mailto:dellavitha@gmail.com">dellavitha@gmail.com</a></li><li>3. Prof. Dr. Sri Wahyuni, UGM, Indonesia, <a href="mailto:swahyuni.maruf@gmail.com">swahyuni.maruf@gmail.com</a></li><li>4. Dr. Indah E. Wijayanti, UGM, Indonesia, <a href="mailto:ind_wijayanti@yahoo.com">ind_wijayanti@yahoo.com</a></li><li>5. Prof. Dr. Bas Edixhoven, Univ. Leiden, The Netherland <a href="mailto:edix@math.leidenuniv.nl">edix@math.leidenuniv.nl</a></li><li>6. Prof. Dr. Michel Jambu Univ. Nice, Framce, <a href="mailto:jambu@unice.fr">jambu@unice.fr</a></li><li>7. Prof. Dr. Zhu Cheng Bo <a href="mailto:matzhucb@nus.edu.sg">matzhucb@nus.edu.sg</a></li></ol>
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5. Describe in a few lines the local institution related to this school, including the main academic program and its strength. Give also the Internet site of the local institutions.

The Algebra Research Group UGM is one of the 5 research groups in Department of Mathematics, Faculty of Mathematics and Natural Sciences UGM.

The Research Program of Algebra Research Group UGM covers the fundamental research with emphasis on the development of the Theory of Module and Linear Algebra; including research in Module Theory with categorical approach and of algebraic structure related to Mathematical System Theory.

In Undergraduate Program in Mathematics we are responsible for teaching Elementary Linear Algebra, Introduction of Algebraic Structures (Groups and Rings), Linear Algebra, Capita Selecta in Algebra.

In Master Program in Mathematics we are responsible for teaching Advanced Linear Algebra, Advanced Algebraic Structures, Module Theory, Finite Field and Topics in Algebra.

The group members are actively working in research on the following areas :

- Research on algebras, modules, coalgebras, and comodules : hereditary, cohereditary, Noether, coNoether, prime, coprime and Dedekind properties.
- Research on linear algebra : characteristic and hyperinvariant subspaces, algebraic structures related to Algebraic Mathematical System Theory
- Research on module theory with categorical approach : derived categories

6. Provide information about the expected participants. The number and the distribution of expected participants.

We expect about 30 undergraduate and master students, and young mathematicians from Indonesia, including 10 participants from other Asian countries.

7. Describe the objectives and the program of the proposed school, including the courses, speakers, abstracts (8 lines each) and tentative schedules for each course.

Objectives of the School is

1. To introduce students to the fundamental theories and research in Representation Theory and some aspects of its;
2. To provide young researchers with sufficient knowledge and background to start their research in Representation Theory.
3. To facilitate contacts between mathematicians working in these areas and the students coming to the School.

The School will introduce students to Representation theory. The school will stimulate a good research atmosphere in Indonesia in particular. Such a school can also stimulate an improvement of the quality of our undergraduate and master programs. This is because of the involvement of undergraduate and master students in this school will be high. This school facilitates an opportunity to meet outstanding speakers/researchers from other countries. This opportunity is very rare and expensive to happen in Indonesia. This opportunity is very likely to induce further and new directions of research. Several natural new linkages and cooperation will occur.

The school will focus on the following courses :

1. **“Introduction to Representation Theory (IRT)”**  
Speakers: Intan Muchtadi (ITB) and Sri Wahyuni (UGM)
2. **“Introduction of Geometric Methods in Representation Theory (IGR)”**.  
Speakers: Michel Jambu (Univ. Of Nice) and Dellavitha Nasution (ITB)
3. **“Representarion Theory of Finite Group (RFG)”**  
Speakers: Bas Edixhoven (Univ. Leiden)
4. **“Representations of Leavitt Path Algebras (RLA) ”**  
Speakers: Indah Emilia Wijayanti (UGM)
5. **“Representation Theory of Lie Groups (RLG)”**  
Speakers: Zhu Cheng Bo (NUS Singapore)

Speakers :

1. Dr. Intan Muchtadi, ITB, [ntan@math.itb.ac.id](mailto:ntan@math.itb.ac.id)
2. Prof. Dr. Sri Wahyuni, UGM, [swahyuni.maruf@gmail.com](mailto:swahyuni.maruf@gmail.com)
3. Dr. Indah E. Wijayanti, UGM, [ind\\_wijayanti@yahoo.com](mailto:ind_wijayanti@yahoo.com)
4. Prof. Dr. Michel Jambu [jambu@unice.fr](mailto:jambu@unice.fr)
5. Prof. Dr. Bas Edixhoven [edix@math.leidenuniv.nl](mailto:edix@math.leidenuniv.nl) (*in confirmation*)
6. Prof. Dr. Zhu Cheng Bo [matzhucb@nus.edu.sg](mailto:matzhucb@nus.edu.sg) (*in confirmation*)

Abstract :

### 1. An Introduction to Representation Theory

The course covers the introduction studies of abstract algebraic structures by representing their elements as structures in linear algebras, such as vectors spaces and linear transformations between them. It will cover some Algebraic Foundations of Representation Theory.

### 2. An Introduction to Geometric Methods of Representation Theory

The main aim of this area is to approach representation theory which deals with symmetry and non-commutative structures by geometric methods (and also get insights on the geometry from the representation theory). Here by geometry we mean any local to global situation where one tries to understand complicated global structures by gluing them from simple local structures.

### 3. Representation Theory of Finite Group

The course will study the character theory of finite groups and illustrate how to get more information about groups. It will be consider to the case of finite groups. Character values as algebraic integers, degree of an irreducible representation divides the order of the group

#### 4. Representations of Leavitt Path Algebras

The course will introduce a topic which consists graph theory and algebraic structures. Some certain graphs could be represented as algebras over a field or a commutative ring. Some algebra's notions such as prime, semiprime, semisimple, etc. have influenced the characterization of the related graphs. Moreover, it would be interesting to explore some other aspects of algebra's behaviours in their graphs.

#### 5. Representation Theory of Lie Groups

This course will cover various aspects of the representation theory of Lie groups. It will be emphasizing the more geometric aspects of representation theory, as well as their relationship to quantum mechanics. Topics include definitions and examples of Lie groups and Lie algebras, the relationship between Lie groups and Lie algebras via the exponential mapping, the basics of representations theory, and a brief survey of the representation theory of general semisimple groups.

#### Tentative Schedules

Hour	Sun, 08	Mon, 09	Tue, 10	Wed, 11	Thu, 12
08.00-08.15	arrival	Opening program			
08.15 - 09.15		IRT 1	IRT 4	IGR 3	RFG 2
09.15 - 10.00					
10.00 - 10.30		break	break	break	break
10.30 - 11.30		IRT 2	IGR 1	IGR 4	RFG 3
11.30 - 12.00					
12.00 - 13.00		Lunch	Lunch	Lunch	Lunch
13.00 - 13.30		IRT 3	IGR 2	RFG 1	RFG 4
13.30 - 14.45					
14.45 - 15.15		break	break		break
15.15 - 16.15		Group	Group		Group
16.15 - 17.15		discussion	discussion		discussion

Hour	Fri, 13	Sat, 14	Sun, 15	Mon, 16	Tue, 17		
08.15 - 09.15	RLA 1	excursion		RLA 4	RLG 3		
09.15 - 09.30							
09.30 - 10.00	break						
10.00 - 10.30	RLA 2					BREAK	BREAK
10.30 - 11.30						RLG 1	RLG 4
11.30 - 12.00	Lunch						
12.00 - 13.00						Lunch	Lunch
13.00 - 13.30	RLA 3					RLG 2	closing
13.30 - 14.15							
14.15 - 14.45	break					break	
14.45 - 15.45	Group					Group	
15.45 - 16.45	discussion					discussion	

8. Provide information about provisional budget and the expected funding.

NO	ITEM					TOTAL
						(euros)
<b>1</b>	<b>TICKETS</b>					
	Overseas Students:		10	1	350	3.500
	Overseas speaker	From Europe (2 people)	2	1	1000	2.000
		From Singapore	1	1	350	350
	Indonesian speakers	2 Indonesian speakers from other city (Intan dan Delavita)	2	1	140	280
<b>2</b>	<b>ACCOMMODATION</b>					
	Overseas students	10 persons- 9 days	10	9	14	1.260
	Speakers	1 person - 9 days	1	9	25	225
	Indonesian speakers	2 Indonesian speakers form other city	2	5	25	250
<b>3</b>	<b>FOOD EXPENSES</b>					
		Lunch + 2 snacks during school : 7 days (70 people)	60	7	4	1.680
		school dinner	60	1	4	240
		lunch and snack during tour	60	1	4	240
<b>4</b>	<b>LOCAL TRANSPORT</b>					
	In Bandung	15 persons	15	9	4	540
	Coaster rental for tour	1 day	1	1	135	135
<b>5</b>	<b>SUPPLIES AND PRINTINGS</b>					
		Program, lecture notes and Kits	60	1	5	300
<b>6</b>	<b>SECRETARIAT AND PRINTINGS and LOCAL COMMITTEE EXPENSES</b>					
			1	1	200	200
		<b>TOTAL</b>				<b>11.200</b>

### Expected Funding Distribution

No	ITEM	TOTAL (euros)
1	CIMPA	4.500
2	IMU	1.600
3	ICTP	1.600
4	Department of Mathematics Faculty of Mathematics and Natural Sciences UGM	1.500
5	Registration Fee Indonesian Participant (40 @ 50 EURO)	2.000
	<b>TOTAL</b>	<b>11.200</b>

9. Provide CVs for the organizers.



# CURRICULUM VITAE

## PROF. DR. SRI WAHYUNI

### I. IDENTITAS

NAMA : PROF. DR. SRI WAHYUNI  
 NIP/NIK \* : 1959-06-19-1983-03-2001  
 TEMPAT DAN TANGGAL LAHIR : BANYUMAS (PURWOKERTO), 19 JUNI 1959  
 JENIS KELAMIN : PEREMPUAN  
 STATUS PERKAWINAN : KAWIN  
 GOLONGAN / PANGKAT \* : IV-D / PEMBINA UTAMA MADYA  
 JABATAN AKADEMIK \* : GURU BESAR  
 PERGURUAN TINGGI/LEMBAGA : UNIVERSITAS GADJAH MADA  
 ALAMAT PT/LEMBAGA : JURUSAN MATEMATIKA, FMIPA – UGM, SEKIP UTARA  
 YOGYAKARTA - 55281  
 TELP. : TELP:(0274) 552243, 555131  
 FAX. : (0274) 555131  
 ALAMAT RUMAH : JALAN NOGOMUDO 22-A, GOWOK, YOGYAKARTA - 55281  
 NOMOR HP : 08164222948  
 ALAMAT E-MAIL : SWAHYUNI@UGM.AC.ID , DAN  
 SWAHYUNI.MARUF@GMAIL.COM

### II. RIWAYAT PENDIDIKAN

TAHUN LULUS	JENJANG PENDIDIKAN	PERGURUAN TINGGI	BIDANG STUDI
1996	S3 (DOKTOR)	UNIVERSITY OF GRAZ (KARL-FRANSENS UNIVERSITY), GRAZ, AUSTRIA	MATEMATIKA
1989	S2 (MAGISTER)	INTITUT TEKNOLOGI BANDUNG, BANDUNG	MATEMATIKA
1982	S1 (DRA. / DOKTORANDA)	UNEVERSTAS GADJAH MADA	MATEMATIKA

### III. PENGALAMAN KERJA

TAHUN	INSTITUSI/ LEMBAGA	JABATAN	JANGKA WAKTU
<b>DOSEN / PENELITI:</b>			
1. 1983 – sekarang	UGM – FMIPA – JURUSAN MATEMATIKA	<b>DOSEN/PENELITI</b> BIDANG MATEMATIKA / ALJABAR DENGGA URUTTAN JABATAN FUNGSIONAL - <b>2003 – PRESENT: PROFESSOR (GURU BESAR)</b> - <b>2001 - 2003: ASSOCIATE PROFESSOR (LEKTOR KEPALA)</b> - <b>1998 - 2000: LECTURER (LEKTOR)</b> - <b>1991 - 1998: YUNIOR LECTURER</b>	31 TAHUN

		<b>(LEKTOR MUDA)</b> - 1987 - 1991: EXPERT ASSISTANT <b>(ASSISTEN AHLI)</b> - 1983 - 1987: MIDLE EXPERT <b>ASSISTANT (ASSISTEN AHLI MADYA)</b>	
<b>MANAGEMEN LEVEL FAKULTAS</b>			
2. 2004 – 2008	FMIPA UGM	<b>WAKIL DEKAN BIDANG KEUANGAN DAN SDM</b> (VICE DEAN FOR ADMINISTRATIVE AND HUMAN RESOURCE DEVELOPMENT, THE FACULTY OF MATHEMATICS AND NATURAL SCIENCES, UNIVERSITAS GADJAH MADA)	4 TAHUN
3. 2008 - 2012	FMIPA UGM	<b>WAKIL DEKAN BIDANG PENELITIAN, KERJASAMA DAN PENG. USAHA</b> (VICE DEAN FOR RESEARCH AND COLLABORATION AFFAIRS, THE FACULTY OF MATHEMATICS AND NATURAL SCIENCES, UNIVERSITAS GADJAH MADA)	4 TAHUN
<b>MANAGEMEN LEVEL JURUSAN</b>			
4. 1999 – 2003	JURUSAN MATEMATIK A FMIPA UGM	<b>KETUA JURUSAN MATEMATIKA FMIPA UGM</b> (CHAIR OF THE DEPARTMENT OF MATHEMATICS)	4 TAHUN
5. 2004 – 2005	JURUSAN MATEMATIK A FMIPA UGM	<b>KETUA JURUSAN MATEMATIKA FMIPA UGM</b> (CHAIR OF THE DEPARTMENT OF MATHEMATICS)	2 TAHUN
6. 2013 – 2014	JURUSAN MATEMATIK A FMIPA UGM	<b>KETUA JURUSAN MATEMATIKA FMIPA UGM</b> (CHAIR OF THE DEPARTMENT OF MATHEMATICS)	2 TAHUN
<b>MANAGEMEN LEVEL PROGRAM STUDI /LABORATORIUM RISET DI BAWAH JURUSAN</b>			
7. 1997 – 1999	PROGRAM PASCASARJANA (S2/S3) MATEMATIKA FMIPA UGM	<b>SEKRETARIS AKADEMIK PS S2/S3 MATEMATIKA</b> (ACADEMIC SECRETARY OF THE GRADUATE PROGRAM (S2) IN MATHEMATICS)	2 TAHUN
8. 2000 – 2005	PROGRAM PASCASARJANA (S2/S3) MATEMATIKA FMIPA UGM	<b>KETUA PS STUDI S2/S3 MATEMATIKA</b> (CHAIR OF THE GRADUATE PROGRAM (S2/S3) IN MATHEMATICS)	5 TAHUN
9. 1999 - 2000	PROGRAM S1 MATEMATIKA FMIPA UGM	<b>KETUA PS STUDI S1 MATEMATIKA</b> (CHAIR OF THE UNDERGRADUTE PROGRAM (S1) IN MATHEMATICS)	2 TAHUN

10. 1998 – 2005	LABORATORIUM RISET ALJABAR	<b>KEPALA LABORATORIUM ALJABAR</b> (CHAIR OF THE ALGEBRA RESEARCH GROUP (LABORATORY))	6 TAHUN
11. 2005	PROGRAM HIBAH KOMPETISI (PHK)	<b>CHAIR / PERSON IN CHARGE</b> PHK A3 DIKTI / JURUSAN MATEMATIKA FMIPA UGM	1 TAHUN

#### IV. PENGALAMAN SEBAGAI REVIEWER

TAHUN	BIDANG	PENYELENGGARA	JANGKA WAKTU
2013	Reviewer Program Program Basiswa LPDP Kementerian Keuangan 2013	LPDP	1 Tahun
2007-2009	Reviewer Program Hibah Kompetisi (PHK) DPT Dikti, Kemendiknas	Kemendiknas / Dewan Pendidikan Tinggi - DIKTI	3 Tahun
2010-2013	Reviewer Tersertifikasi Program Hibah Penelitian LPPM UGM	UGM - LPPM	3 Tahun
2010-2013	Reviewer Program Hibah Kompetisi (PHK) Program Studi Universitas Islam Indonesia, Yogyakarta	UNIVERSITAS ISLAM INDONESIA - YOGYAKARTA	3 TAHUN
2011	Tim Evaluasi Standar Pendidikan Tinggi Berdasarkan Paradigma Pendidikan Tinggi – BSNP	BSNP - KEMENDIKNAS	1 TAHUN
2012-2014	Reviewer Dosen dan Ketua Program Studi Berprestasi Berprestasi , Direktorat SDM UGM	DIREKTORAT SDM UGM	4 TAHUN
2000 - sekarang	Reviewer beberapa prosiding dan jurnal konferensi nasional dan internasional	INDOMS	

#### V. PENGALAMAN PELATIHAN / WORKSHOP terkait dengan Akreditasi

TAHUN	JENIS PELATIHAN/WORKSHOP	INSTITUSI PENYELENGGARA	JANGKA WAKTU
2009	WORKSHOP: INTERNATIONAL ACCREDITATION FOR DEGREE PROGRAMMES IN ENGINEERING, INFORMATICS AND THE NATURAL SCIENCES – BENEFITS, REQUIREMENTS AND PROCEDURES, GERMANY	ASIIN GERMANY	2 HARI
2013	WORKSHOP PENYUSUNAN SELF ASSESSMENT REPORT ASEAN UNIVERSITY NETWORK (SAR AUN- QA)	KANTOR JAMINAN MUTU UGM	1 HARI

## VI. PENGALAMAN RISET

TAHUN	JUDUL RISET	SUMBER DANA
2014	HUBUNGAN ANTARA KEPROYEKTIFAN, PEKURNIAN, DAN EKISTENSI PENJUMLAH LANGSUNG	DANA MASYARAKAT JURUSAN MATEMATIKA FMIPA UGM
2013	SIFAT PROYEKTIF MODUL INVERTIBEL DAN MODUL PADAT	DANA MASYARAKT FMIPA / JURUSAN MATEMATIKA
2013	SUBMODUL PRIMA PENUH (ANNGOTA PENELITI)	PENELITIAN PROGRAM HIBAH KOMPETENSI, DP2M DIKTI, KEMENDIKNAS
2012	SIFAT PROYEKTIF MODUL INVERTIBEL DAN MODUL PADAT	DANA MASYARAKAT JURUSAN MATEMATIKA FMIPA UGM
2010-2011	SUBMODUL TERKOMPLEMEN	BIAYA MANDIRI
2008-2009	PENGAJARAN TEORI MODUL BERBASIS RISET”, DIPA LPPM UGM	DANA DIPA LPPM UGM
2006-2007	KARAKTERISASI SISTEM MATEMATIKAMELALUI PENDEKATAN ALJABAR	PENELITIAN MULTIYEARS PROGRAM HIBAH PENEITIAN PASCASARJANA, DP2M DIKTI, KEMENDIKNAS

## VII. PENGALAMAN SEBAGAI PEMBIMBING TESIS/ DISERTASI

TAHUN	JUDUL TESIS/ DISERTASI	TESIS	DISERTASI
2011 (LULUS)	EMA CARNIA (DOSEN UNPAD), <b>“FUNGTORIALITAS DAN ISOMORFISMA ALJABAR INSIDENSI SUATU PARTIALLY ORDERED SET (POSET).</b>		SEBAGAI PROMOTOR
2011 (LULUS)	ANDI RUDHITO (DOSEN USD), <b>“ALJABAR MAX-PLUS BILANGAN KABUR DAN PENERAPANNYA PADA MASALAH PENJADWALAN DAN JARINGAN ANTRIAN KABUR”.</b>		SEBAGAI PROMOTOR
2008 (LULUS)	IKRAR PRAMUDYA (BALITBANG DIKNAS), <b>“THE SOLUTION OF DELAY DEFERENTIAL EQUATION WITH ALGEBRAIC”.</b>		SEBAGAI PROMOTOR
2008 (LULUS)	HARDI SUYITNO(DOSEN UNNES), <b>“EPISTEMOLOGI LOGIKA MATEMATIKA MENURUT WITTGENSTEIN”</b> (PROGRAM DOKTOR FAKULTAS FILSAFAT-UGM)		SEBAGAI CO-PROMOTOR
2007 (LULUS)	MARSIGIT (DOSEN UNY): <b>“THE ROLE OF KANT’S THEORY OF KNOWLEDGE IN SETTING UP THE EPISTEMOLOGICAL FOUNDATION OF MATHEMATICS”</b> (PROGRAM DOKTOR FAKULTAS FILSAFAT-UGM)		SEBAGAI CO-PROMOTOR
2006	SALMAH (DOSEN UGM): <b>“SYSTEMS LINEAR</b>		SEBAGAI

(LULUS)	<b>DESCRIPTOR”</b>		CO-PROMOTOR
2006 (LULUS)	BUDI SURODJO (DOSEN UGM), <b>“CO ALGEBRA OF FORMAL POWER SERIES”</b> ,		SEBAGAI CO-PROMOTOR
2005 (LULUS)	MARDIYANA (DOSEN UNS): <b>“TOPIC IN BANACH ALGEBRA”</b>		SEBAGAI CO-PROMOTOR
2013 (BELUM LULUS, MASIH PROSES)	7 (TUJUH) MAHASISWA S3 BIDANG ALJABAR <ul style="list-style-type: none"> <li>• Suprpto (Guru SMP Bantul)</li> <li>• Karyati (dosen UNY)</li> <li>• Atun Ismawarti (dosen UT)</li> <li>• Harina Orfa Monim (dosen UNIPA)</li> <li>• Khurul Wardati (dosen UIN Suka)</li> <li>• Tii Udjiani SRRM (dosen UNDIP)</li> <li>• Sutopo (dosen UGM)</li> </ul>		SEBAGAI PROMOTOR
2014 (LULUS)	<ul style="list-style-type: none"> <li>• Abdul Hadi, <b>“Karakteristik Modul Proyektif Atas Daerah Dedekind”</b>, 2014</li> </ul>	PEMBIMBING UTAMA	
2013 (LULUS)	<ul style="list-style-type: none"> <li>• Ari Dwi Hartatyo, <b>Semiring</b>, 2013</li> <li>• Baiq Desi Aniska, <b>Aplikasi Himpunan Sandwiich</b>, 2013</li> </ul>	PEMBIMBING UTAMA	
2012 (LULUS)	<ul style="list-style-type: none"> <li>• Soffi Widyati Priwanto, <b>Semigrup Legal</b>, 2012</li> </ul>	PEMBIMBING UTAMA	
2011 (LULUS)	<ul style="list-style-type: none"> <li>• Henry Willyam Michel Patty, <b>Karakterisasi Ring dengan Sifat Uniquely Morphic</b>, 2011</li> <li>• Fitriani, <b>Kongruensi Idempotent-Separating Maksimum pada r-semigrup Reguler</b>, 2011</li> <li>• Cicilia Puji Rahayu, <b>r-semigrup Reguler dan Q-semigrup Reguler</b>, 2011</li> </ul>	PEMBIMBING UTAMA	
2010 (LULUS)	<ul style="list-style-type: none"> <li>• Muhamad Zaki Riyanto, <b>Penyelesaian Sistem Persamaan Polinomial Menggunakan Teknik Basis Groebner dan Penerapannya Dalam Kriptanalisis</b>, 2010</li> </ul>	PEMBIMBING UTAMA	
2009 (LULUS)	<ul style="list-style-type: none"> <li>• Harina Orpa Lefina Monim, <b>Hyper Aljabar-K Faktor</b>, 2009</li> <li>• Denik Agustito, <b>Homology dari Ruang Topologi</b>, 2009</li> </ul>	PEMBIMBING UTAMA	
2008 (LULUS)	<ul style="list-style-type: none"> <li>• Christina M. Laamena, <b>Ideal pada Half G –Ring</b>, 2008</li> <li>• Nani Kurniati, <b>Bi-Ideal Prime dari Semigrup</b>, 2008</li> <li>• Widayati, <b>Kondisi Urutan Natural pada Semigrup Reguler</b>. 2008</li> </ul>	PEMBIMBING UTAMA	

**VIII. KARYA ILMIAH (Buku/Jurnal/Makalah)**

TAHUN	JUDUL	PENERBIT/JURNAL/ MEDIA
<b>A. Buku</b>		
2011	BUKU MATERI PEMBELAJARAN UT: "ALJABAR"	UT JAKARTA
2010	DIKTAT KULIAH: "ALJABAR`LINEAR ELEMENTER"	JURUSAN MATEMATIKA FMIPA UGM
2012	DIKTAT KULIAH: "PENGANTAR STRUKTUR ALJABAR I"	JURUSAN MATEMATIKA FMIPA UGM
2013	DIKTAT KULIAH: "PENGANTAR STRUKTUR ALJABAR II"	JURUSAN MATEMATIKA FMIPA UGM
2013-2014	DIKTAT KULIAH: "TEORI MODUL"	JURUSAN MATEMATIKA FMIPA UGM
<b>B. Jurnal</b>		
2014	"RADICAL RELATED TO SPECIAL ATOMS REVISITED" (AUTHORS: HALINA FRANCE- JACKSON, SRI WAHYUNI, INDAH EMILIA WIJAYANTI)	WILL APPEAR AT "BULLETIN OF THE AUSTRALIAN MATHEMATICAL SOCIETY"
2014	GENERALIZED MOORE PENROSE INVERSE IN RINGS WITH AN INVOLUTION (AUTHORS: TITI UDJIANI, SRI WAHYUNI, BUDI SURODJO)	WILL APPEAR AT "INTERNASIONAL FAR EAST JOURNAL"
2011	"SYSTEMS OF FUZZY NUMBER MAX-PLUS LINEAR EQUATIONS",	JOURNAL OF THE INDONESIAN MATHEMATICAL SOCIETY, INDOMS, VOL. 17 No. 1. APRIL 2011, PP. 17-28. SK NO.:51/DIKTI/KEP/2010
2011	"MATRIKS ATAS ALJABAR MAX- PLUS INTERVAL",	JURNAL NATUR INDONESIA, UNRI, VOL. 13 No. 2. FEBRUARI 2011. PP. 94-99, ISSN 1410-9379, SK AKREDITASI No.65A/ DIKTI/KEP./2008
2011	"KONGRUENSI UNSUR IDEMPOTEN ORTOGONAL DALAM ALJABAR INSIDENSI FINITARY",	JURNAL NATUR INDONESIA VOL 13(2), FEBRUARI 2011: 89-93. DITERBITKAN OLEH UNRI. ISSN 1410-9379, KEPUTUSAN AKREDITASI NO 65A/DIKTI/KEP./2008
2011	"ON T [M ]-COHEREDITARY MODULES"	JURNAL ILMU DASAR (JID), UNEJ, VOL 12 No 2, 2011, PP. 184-190.

2010	<b>„SISTEM PERSAMAAN LINEAR INPUT-OUTPUT MAX-PLUS INTERVAL“</b> ,	JURNAL MATEMATIKA LOGIKA, UIN SYARIF HIDAYATULLAH, JAKARTA. VOL. 3 NO. 1,, 2010, PP. 25-33.
	<b>„SISTEM PERSAMAAN LINEAR ITERATIF MAX-PLUS BILANGAN KABUR“</b> ,	JURNAL MATEMATIKA DAN STATISTIKA, UNIVERSITAS BINA NUSANTARA, JAKARTA. VOL. 10 NO. 1, PP. 1-14.
2010	<b>„PEMODELAN ALJABAR MAX-PLUS DAN EVALUASI KINERJA JARINGAN ANTRIAN FORK-JOIN TAKSIKLIK DENGAN KAPASITAS PENYANGGA TAKHINGGA“</b> ,	JURNAL MATEMATIKA, UNIVERSITAS UDAYANA, BALI. VOL. 1 NO. 1 TAHUN 2010 PP. 8-15.
2008	<b>”FUNGTORIALITAS PADA ALJABAR INSIDENSI BERHINGGA”</b>	, BERKALA ILMIAH MIPA, MAJALAH ILMIAH MATEMATIKA DAN ILMU PENGETAHUAN ALAM, FMIPA UGM, VOL.18(2), MEI 2008, PP 129-135, SK DIRJEN DIKTI AKREDITASI JURNAL NO.26/DIKTI/KEP/2005.
2008	<b>„ALJABAR MAX-PLUS BILANGAN KABUR“</b> ,	BERKALA ILMIAH MIPA, MAJALAH ILMIAH MATEMATIKA DAN ILMU PENGETAHUAN ALAM, FMIPA UGM, VOL.18(2), MEI 2008, PP 153-164, SK DIRJEN DIKTI AKREDITASI JURNAL NO.26/DIKTI/KEP/2005. (EMA CARNIA, <b>SRI WAHYUNI</b> , SETIADJI, IRAWATI)
<b>C. Makalah</b>		
13-21 AGUSTUS 2014	CONNECTION BETWEEN COMPLEMENTED, CONTINUOUS, AND PURE SUBMODULES	INTERNATIONAL CONGRESS OF MATHEMATICS, SEOUL ICM 2014, SEOUL, KOREA SELATAN
12 AND 14 AGUSTUS 2014	ON CONNECTION BETWEEN PROJECTIVENESS, PURITY, AND THEEXISTENCE OF DIRECT SUMMAND OF MODULES	INTERNATIONAL CONGRESS OF WOMAN MATHEMATICIANS, SEOUL ICWM 2014, EWHA UNIVERSITY, SEOUL, KOREA SELATAN
22-FEB-14	SIFAT PROYEKTIF MODUL INVERTIBEL DAN MODUL PADAT	SEMINAR NASIONAL MATEMATIKA DAN PENDIDIKAN MATEMATIKA UNIVERSITAS NEGERI YOGYAKARTA
3 - 4 MEI 2014	SIFAT-SIFAT MODU FRAKSI Q(D) ATAS DAERAH INTEGRAL D	SEMINAR NASIONAL MATEMATIKA ALJABAR, JURUSAN MATEMATIKA FMIPA

		UNHAS DAN HIMPUNAN PEMINAT ALJABAR
11 s.d. 14 JUNI 2014	TOPIK-TOPIK DALAM TEORI MODUL: SUATU SURVEI ATAS FENOMENA PEMUNCULAN KONSEP, PROBLEM, DAN PENYELESAIAN.	KONFERENSI NASIONAL MATEMATIKA (KNM) XVII, INSTITUT TEKNOLOGI SEPULUH NOVEMBER
2013 (OCTOBER 2013, UNIVERSITY OF DILIMAN, THE PHILIPPINES)	THE RELATIONSHIP OF CLOSENESS, DENSENESS, AND ESSENTIALNESS OF A SUBMODULE.	THE DILIMAN MATHEMATICS RESEARCH WORKSHOP (INVITED SPEAKER)
2013 (NOVEMBER 2013, P4TK MATEMATIKA, YOGYAKARTA)	MATEMATIKA UNTUK PENDIDIK	SEMINAR NASIONAL PENDIDIKAN MATEMATIKA TAHUN 2013 (INVITED SPEAKER)
2013	<b>“THE REALTION BETWEEN THE CLOSENESS, THE DENSENESS, AND THE ESSENTIALITY OF MODULES”</b> ,	POSTER PRESENTED AT THE ASIAN MATHEMATICAL SOCIETY (AMC) 2013, BUSAN
2012	<b>“LINEAR SYSTEM OVER RINGS”</b> ,	THE DEPARTMENT OF MATHEMATICS SEMINAR, UNIVERSITY OF LEIDEN, THE NETHERLANDS, 2011 (SRI WAHYUNI)
2011	<b>“APPLICATION OF FUZZY NUMBER MAX-PLUS ALGEBRA TO CLOSED SERIAL QUEUING NETWORK WITH FUZZY ACTIVITY TIME”</b> ,	THE 6-TH SEAMS-GMU INTERNATIONAL CONFERENCE ON MATHEMATICS AND ITS APPLICATIONS, FMIPA UGM – YOGYAKARTA, JULY 12-15, 2011. (ANDI RUDHITO, SRI WAHYUNI, ARI SUPARWANTO, FRANS SUSILO)
2010	<b>“A CHARACTERIZATION OF SUPPLEMENTED MODULES OVER PRINCIPAL IDEAL RING”</b> ,	INTERNATIONAL CONFERENCE ON ALGEBRA 2010 (ICA2010), FMIPA UGM, YOGYAKARTA OCTOBER 07-09, 2010. (SRI WAHYUNI)
2009	<b>“ON CHARACTERIZATION OF DIRECT SUMMAND OF O-PLUS SUPPLEMENTED MODULES OVER COMMUTATIVE IDEAL RING”</b>	WORKSHOP ON ALGEBRA, UNIVERSITY OF MAEJO CHIANG MAY, THAILAND; 2009. (SRI WAHYUNI)
2009	<b>“DETERMINING THE EARLIEST STARTING TIMES IN PROJECT NETWORKS WITH INTERVAL ACTIVITY TIMES USING INTERVAL MAX-PLUS ALGEBRA”</b> .	THE 1 <sup>ST</sup> INTERNATIONAL SEMINAR ON SCIENCE AND TECHNOLOGY (ISSTEC 2009), UII YOGYAKARTA. 24-25 JANUARI 2009. (ANDI RUDHITO, SRI WAHYUNI, ARI SUPARWANTO, FRANS SUSILO).



2009	<b>“APPLICATIONS OF FUZZY NUMBER MAX-PLUS EIGENVALUES ON QUEUING NETWORKS WITH FUZZY ACTIVITY TIMES”.</b>	INTERNATIONAL CONFERENCE ON MATHEMATICS, STATISTICS AND THEIR APPLICATIONS (ICMSA 2009). UNIVERSITAS ANDALAS, BUKTTINGGI. 9-11 JUNI 2009. (ANDI RUDHITO, SRI WAHYUNI, ARI SUPARWANTO, FRANS SUSILO).
2009	<b>“INCIDENCE ALGEBRA OF NON LOCALLY FINITE POSET”.</b>	INTERNATIONAL CONFERENCE ON NATURAL AND MATERIAL SCIENCES (NAMES 09). UNIVERSITAS LAMBUNG MANGKURAT, BANJARMASIN 3-4 JULI 2009.( EMA CARNIA, SRI WAHYUNI, SETIADJI, IRAWATI)
2009	<b>“THE PROPERTIES OF THE FUZZY GREEN RELATION OF SEMIGROUPS”.</b>	4TH INTERNATIONAL CONFERENCE ON MATHEMATICS AND STATISTICS (ICOMS-4). UNIVERSITAS MALAHAYATI, BANDAR LAMPUNG, 2009. (KARYATI, INDAH EMILIA WIJAYANTI, SRI WAHYUNI, BUDI SURODJO , SETIADJI).
2008	<b>“TOPIC STUDY GROUP: THE EVALUATION OF MATHEMATICS TEACHERS AND CURRICULA WITHIN EDUCATIONAL SYSTEMS”;</b>	PROCEEDING ICME-11, THE 11TH INTERNATIONAL CONGRESS ON MATHEMATICAL EDUCATION, MEXICO, 2008
2008	<b>“SOME RESULTS ON SUBSTITUTION OF MATRICES OVER RINGS AND ITS APPLICATIONS”</b>	3RD INTERNATIONAL CONFERENCE ON MATHEMATICS AND STATISTICS (ICOMS-3). FMIPA IPB 5-6 AGUSTUS 2008. (SRI WAHYUNI)

#### **IX. Pengalaman Menyelenggarakan KONFERENSI DAN SEMINAR**

<b>TAHUN</b>	<b>JUDUL KEGIATAN</b>	<b>PENYELENGGARA</b>	<b>PANITIA/PESERTA / PEMBICARA</b>
2013	Workshop “Capaian Pembelajaran (Learning Outcome) dan Struktur Kurikulum Minimal Program Studi S1 Matematika, Pendidikan Matematika, Statistika serta Ilmu Komputer/Teknik Informatika”	UGM DAN INDOMS (INDONESIAN MATHEMATICAK SOCIETY)	KETUA PANITIA LOKAL

	7-8 November 2013 2013 dari IndoMS		
2013	IICMA 2013 (IndoMS International Conference of Mathematics and Its Applications), Universitas Gadjah Mada, 6-8 November 2013.	UGM DAN INDOMS (INDONESIAN MATHEMATICAL SOCIETY)	KETUA PANITIA LOKAL (THE CHAIR OF LOCAL ORGANIZING COMMITTEE)
2011	UGM-CRI Workshop on "Developing Education through Research" 1st Edition, 20-23 December 2011 at Department Mathematics. Universitas Gadjah Mada, Yogyakarta, Indonesia.	UGM DAN CRI	THE CHAIR OF THE ORGANIZING COMMITTEE OF
2011	UGM-CIMPA 2011 School on Non-linear Computational Geometry, July 18-29, 2011 at Department Mathematics. Universitas Gadjah Mada, Yogyakarta, Indonesia.	UGM - CIMPA	THE CHAIR OF THE ORGANIZING COMMITTEE
2011	The 6-th SEAMS-GMU 2011 International Conference on Mathematics and Its Applications, at Department Mathematics. Universitas Gadjah Mada, Yogyakarta, Indonesia.	UGM - SEAMS	THE MEMBER OF STEERING COMMITTEE OF
2010	International Conference on Algebra in honor of the 70th birthday of Professor Shum Kar Ping to be held in Yogyakarta, Indonesia on October 7-10, 2010, at Department Mathematics. Universitas Gadjah Mada, Yogyakarta, Indonesia.	UGM	THE CHAIR OF ORGANIZING COMMITTEE

#### **X. PENGALAMAN KEPEMIMPINAN**

<b>TINGKAT</b>	<b>RUANG LINGKUP JABATAN</b>	<b>JANGKA WAKTU</b>
a. NASIONAL	PREDISENT INDOMS (THE INDONESIAN MATHEMATICAL SOCIETY)	2 PERIODE: <ul style="list-style-type: none"> <li>• 2002-2004</li> <li>• 2004-2006</li> </ul>
b. NASIONAL	KOORDINATOR KEGIATAN HIMPUNAN PEMINAT ALJABAR	1996 - 2000

**XI. PENGHARGAAN**

TAHUN	BENTUK PENGHARGAAN	PEMBERI
1990	PIAGAM PENGHARGAAN DOSEN TELADAN III UNIVERSITAS GADJAH MADA (FMIPA)	REKTOR UGM
1997	PIAGAM PENGHARGAAN DOSEN TELADAN I UNIVERSITAS GADJAH MADA (FMIPA)	REKTOR UGM
1999	PIAGAM TANDA KEHORMATAN RI - PENGHARGAAN SATYA LENCANA KARYA SATYA X TAHUN	PRESIDEN RI BJ HABIBIE
2009	PIAGAM TANDA KEHORMATAN RI - PENGHARGAAN SATYA LENCANA KARYA SATYA XX TAHUN	PRESIDEN RI SOESILO BAMBANG YUDYONONO
2009	PIAGAM PENGHARGAAN KESETIAAN 25 TAHUN UNIVERSITAS GADJAH MADA	REKTOR UGM

**XII. Pengalaman Merumuskan Kebijakan Publik**

TAHUN	PRESTASI	TINGKAT
2013-2014	MENJADI TIM PERUMUS "REKOMENDASI EXPECTED LEARNING OUTCOME MINIMAL DAN KURIKULUM PS S1 MATEMATIKA - THE INDONESIAN MATHEMATICAL SOCIETY	NASIONAL
2011	DITUNJUK SEBAGAI SALAH SATU ANGGOTA TIM EVALUASI STANDAR PENDIDIKAN TINGGI OLEH BSNP	NASIONAL
1996 s/d SEKARANG	SEBAGAI INISIATOR PEMBENTUKAN " <b>HIMPUNAN PEMINAT ALJABAR (HPA)</b> " (INDONESIAN ALGEBRAIST SOCIETY) SEBAGAI WADAH DARI PARA PENELITI BIDANG ALJABAR DI INDONESIA. KOMUNITAS HPA TERSEBUT MASIH HIDUP DAN AKTIF SAMPAI SEKARANG.	NASIONAL
2002-2004, DAN 2004-2006	SEBAGAI PESIDENT HIMPUNAN ORGANISASI PROFES INDONESIAN MATHEMATICAL SOCIETY SELAMA 2 PERIDE BERTURUT-TURUT DENGAN SALAH SATU PRODUKNYA ADALAH " <b>REKOMENDASI KURIKULUM PS S1 MATEMATIKA DAN S1 PENDIDIKAN MATEMATIKA TAHUN 2006</b> " YANG SEKARANG DIPAKAI SEBAGAI SALAH SATU DOKUMEN YANG DIPAKAI OLEH PROGRAM STUDI S1 MATEMATIKA DAN PENDIKAN MATEMATIIKA DI INDONESIA.	NASIONAL
1998 SD SEKARANG	MENJADI BAGIAN DARI MASYARAKAT MATEMATIKA REGIOAL SEAMS	ASEAN (REGIONAL)
2000 SD SEKAANG	MENJADI BAGIAN DARI MASYARAKAT PENDIDIK MATEMATIKA (MATHEMATICS INSTRUCTUR) MELALUI ICMI (INTERNATIONAL COMMISION ON MATHEMATICS INTRUCTION) – YANG MERUPAKAN BAGIAN DARI IMU	INTERNATIONAL

	(INTERNATIONAL MATHEMATICS UNION) DAN DIUNDANG MENGIKUTI ICME (INTERATIONAL CONGRESS MATHEMATICS EDUCATION) DI COPNEHAGEN DAN MONTERRY MEXICO DAN ICM (INTERNATIONAL CONGRESS ON MATHEMATICS) DI BEIJING	
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### **XIII. ORGANISASI PROFESI/ILMIAH**

<b>TAHUN</b>	<b>JENIS/NAMA ORGANISASI</b>	<b>JABATAN/JENJANG KEANGGOTAAN</b>
<b>1984 - SEKARANG</b>	<b>THE INDONESIAN MATHEMATICAL SOCIETY (INDOMS)</b>	<b>ANGGOTA / KETUA</b>
<b>1997 - SEKARANG</b>	<b>SOUTH EAST MATHEMATICAL SOCIETY (SEAMS)</b>	<b>INDONESIAN REPRESENTATITIVS</b>
<b>1998 - SEKARANG</b>	<b>INDONESIAN ALGEBRAIST SOCIETY</b>	<b>KOORDINATOR KEGIATAN</b>
<b>2001- SEKARANG</b>	<b>INTERNATIONAL LINEAR ALGEBRA SOCIETY (ILAS)</b>	<b>ANGGOTA</b>
<b>2000-2003</b>	<b>INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERING (IEEE)</b>	<b>ANGGOTA</b>
<b>2000-2003</b>	<b>IEEE CSS (CONTROL SYSTEMS SOCIETY)</b>	<b>ANGGOTA</b>
<b>2000-SEKARANG</b>	<b>INTERNATIONAL COMMISION OF MATHEMATICS INSTRUCTIONS (ICMI) IMU (INTERNATIONAL MATHEMATICS UNION)</b>	<b>ANGGOTA</b>

## CURRICULUM VITAE

### DR. INDAH EMILIA WIJAYANTI, M.Si

A	NAME	DR. INDAH EMILIA WIJAYANTI, M.Si
B	DATE AND PLACE OF BIRTH	KENDAL, 27 SEPTEMBER 1970
C	CURRENT PROFESSIONAL POSITION	LECTURER
D	OFFICIAL ADDRESS	JURUSAN MATEMATIKA FMIPA UGM Sekip Utara Yogyakarta 55281
	PHONE/FAX	TELP : 0274- 55 22 43/ FAX : 0274-555131
	E-MAIL	IND_WIJAYANTI@UGM.AC.ID, IND_WIJAYANTI@YAHOO.COM
	WEBPAGE	HTTP://UGM.ACADEMIA.EDU/INDAHEMILIAWIJAYANTI HTTP://ACADSTAFF.UGM.AC.ID/INDAHEMILIA
E	HOME ADDRESS	JL. TIMOHO II GANG DELIMA 30C YOGYAKARTA

#### F. BACKGROUND EDUCATION

	S1	S2	S3
INSTITUTION	UGM	UGM	HEINRICH HEINE UNIVERSITY OF DUESSELDORF, GERMANY
SUBJECT	MATHEMATICS	MATHEMATICS	MATHEMATICS
YEAR	1988 - 1993	1996 - 1998	2002 - 2006
TITLE OF FINAL PROJECT	TEORI SISTEM MATEMATIKA	BENTUK JORDAN DAN TERAPANNYA	COPRIME COMODULES
SUPERVISOR	DRA. DIAH YUNIA EKSI PALUPI, MS	PROF. DR. SRI WAHYUNI	PROF. ROBERT WISBAUER

#### G. PROFESSIONAL EXPERIENCE

NO.	YEAR	POSITION
1.	1994 - NOW	ASSOCIATE PROFESSOR IN MATHEMATICS, DEPARTMENT OF MATHEMATICS, UGM
2.	2011 – 2013, 2013 – 2015.	CHAIR OF ALGEBRA RESEARCH GROUP IN DEPARTMENT OF MATHEMATICS, UGM
3.	2008 – 2010, 2010 - 2012	COORDINATOR OF ALGEBRA RESEARCH GROUP IN INDONESIAN MATHEMATICAL SOCIETY.
4.	2008 – 2010, 2010 - 2012	SECRETARY OF INDONESIAN MATHEMATICAL SOCIETY.
5.	2007 - 2011	COORDINATOR OF INDONESIAN ALGEBRAIC SOCIETY (HIMPUNAN PEMINAT ALJABAR, HPA)

#### H. MANAGEMENT OF JOURNAL EXPERIENCE

No.	YEAR	POSITION
1.	2010 - NOW	EDITOR BIMIPA (BERKALA ILMIAH MIPA)
2.	2011 - 2012	EDITOR IN CHIEF OF PROCEEDINGS OF SEAMS-UGM CONFERENCE ON MATHEMATICS AND ITS APPLICATIONS 2011.
3.	2012 – NOW	EDITOR IN CHIEF OF JOURNAL OF MATHEMATICS, STATISTICS AND APPLICATIONS (JMSA), PUBLISHED BY DEPARTMENT OF MATHEMATICS, UGM.

#### I. PUBLICATION IN 3 YEARS

No	YEAR	TITLE	VOLUME / No.	PUBLISHER
1.	2012	ON PRODUCT OF N-COGROUP (INDAH EMILIA WIJAYANTI)	VOL. 18 No. 2, 101-111, OCTOBER 2012	JOURNAL OF INDONESIAN MATHEMATICAL SOCIETY (JIMS).
2.	2013	SAFETY ANALYSIS OF LINEAR SYSTEMS WITH COMPLEX EIGENVALUES USING SOS (NOORMA YULIA MEGAWATI, SALMAH, INDAH EMILIA WIJAYANTI)		INTERNATIONAL JOURNAL OF IMAGING AND ROBOTICS, CESER PUBLICATION
3.	2013	THE LOCALLY BOUNDEDNESS CRITERIA FOR SUPERPOSITION OPERATOR ON $l_\phi(L)$ (ELVINA HERAWATI, SUPAMA, INDAH EMILIA WIJAYANTI)	VOL. 7 NO. 15, 727-733.	APPLIED MATHEMATICAL SCIENCES
4.	2013	ON THE TOTAL EDGE IRREGULARITY STRENGTH OF GENERALIZED HELMS (DIARI INDRIATI, WIDODO, INDAH EMILIA WIJAYANTI, KIKI ARIYANTI SUGENG)	VOL. 10 No.2, 147-155	ACKE INTERNATIONAL JOURNAL OF GRAPHS AND COMBINATORICS
5.	2014	ON THE TOTAL EDGE IRREGULARITY STRENGTH OF GEARS AND RELATED GRAPHS (DIARI INDRIATI, WIDODO, INDAH EMILIA WIJAYANTI, KIKI ARIYANTI SUGENG)	VOL. 90 No 1, 117 - 127	FAR EAST JOURNAL OF MATHEMATICAL SCIENCES
6.	2014	RADICAL RELATED TO SPECIAL ATOMS REVISITED (HALINA FRANCE-JACKSON, SRI WAHYUNI, INDAH EMILIA WIJAYANTI)	ACCEPTED	BULLETIN OF THE AUSTRALIAN MATHEMATICAL SOCIETY

7.	2014	ENDO-PRIME SUBMODULES IN ENDO-MULTIPLICATION MODULES (INDAH EMILIA WIJAYANTI)	VOL. 9 No. 27, 1321-1332	INTERNATIONAL MATHEMATICAL FORUM (IMF), HIKARI LTD.
8.	2014	PRIMENESS OF PATH ALGEBRAS OVER A UNITAL COMMUTATIVE RING (KHURUL WARDATI, INDAH EMILIA WIJAYANTI)	ACCEPTED	JP JOURNAL OF ALGEBRA
9.	2014	ON FREE IDEALS IN FREE ALGEBRAS OVER A COMMUTATIVE RING (KHURUL WARDATI, INDAH EMILIA WIJAYANTI, SRI WAHYUNI)	TO APPEAR	JOURNAL OF INDONESIAN MATHEMATICAL SOCIETY (JIMS).
10.	2015	ON JOINTLY PRIME RADICALS OF (R,S)-MODULES (DIAN ARIESTA YUWANINGSIH, INDAH EMILIA WIJAYANTI)	TO APPEAR	JOURNAL OF INDONESIAN MATHEMATICAL SOCIETY (JIMS).
11.	2015	PENYISIPAN SEBARANG RING KE DALAM RING BERSIH MENGGUNAKAN LOKALISASI (UHA ISNAINI, INDAH EMILIA WIJAYANTI)	ACCEPTED AND TO APPEAR IN APRIL 2015	JURNAL MATEMATIKA DAN SAINS (JMS), ITB

J. EXPERIENCE IN WRITING BOOKS.

N O	YEAR	TITLE	PAGE	PUBLISHER
1.	2010	ALJABAR LINEAR 2 (RIZKY ROSJANUARDI, SRI WAHYUNI, INDAH EMILIA WIJAYANTI)	120	UNIVERSITAS TERBUKA
2.	2011	DIKTAT ALJABAR LINEAR ELEMENTER (INDAH EMILIA WIJAYANTI)	80	JURUSAN MATEMATIKA FMIPA UGM
3.	2012	DIKTAT TEORI RING LANJUT (INDAH EMILIA WIJAYANTI)	80	JURUSAN MATEMATIKA FMIPA UGM
4.	2013	DRAFT BUKU TEKS : DASAR-DASAR ALJABAR LINEAR DAN PENERAPANNYA DI BERBAGAI BIDANG (INDAH EMILIA WIJAYANTI, SRI WAHYUNI, YENI SUSANTI)	225	WILL BE PUBLISHED BY GADJAH MADA UNIVERSITY PRESS

K. RESEARCH GRANT IN 3 YEARS

No	YEAR	TITLE	GRANT	
			SOURCE	AMOUNT (Rp.)
1.	2011	R-ALJABAR BERSIH (INDAH EMILIA WIJAYANTI - KETUA), (UHA ISNAINI, KARTIKA SARI, CYRENIA NOVELLA - ANGGOTA)	HIBAH PENELITIAN JURUSAN MATEMATIKA FMIPA UGM	10.000.000

2.	2012	SUBMODUL PRIMA DAN RADIKAL PRIMA PADA MODUL PERKALIAN ATAS RING SEBARANG ( <b>INDAH EMILIA WIJAYANTI</b> - KETUA)	HIBAH PENELITIAN NON-KOMPETISI JURUSAN MATEMATIKA FMIPA UGM	5.000.000
3.	2012	PEMBAGIAN RAHASIA SHAMIR MENGGUNAKAN KODE LINEAR ( <b>INDAH EMILIA WIJAYANTI</b> -KETUA, RININGSIH)	HIBAH PENELITIAN KOLABORASI DOSEN MAHASISWA	6.500.000
4.	2013	SIFAT-SIFAT SUBMODUL PRIMA PENUH (INDAH EMILIA WIJAYANTI - KETUA, SRI WAHYUNI, DIAN ARIESTA YUWANINGSIH)	HIBAH KOMPETENSI DIKTI (TAHUN PERTAMA)	115.000.000
5.	2013	MODUL FRAKSI DARI MODUL MULTIPLIKASI (INDAH EMILIA WIJAYANTI – KETUA, UHA ISNAINI)	Hibah Penelitian Jurusan Matematika FMIPA UGM	10.000.000
6.	2013	SUBMODUL KEDUA PADA MODUL KOMULTIPLIKASI ATAS RING SEBARANG (INDAH EMILIA WIJAYANTI – KETUA, LAILA DINI ANGGRAINI, LALU IRMAN SUHAEDADING)	Hibah PUPTN Insentif Penelitian Mahasiswa	7.500.000
7.	2013	Clean Coalgebras ( <b>Indah Emilia Wijayanti</b> – Ketua, Robert Wisbauer – Host Professor di HHU Duesseldorf, Jerman)	Deutsche Akademischer Austausch Dienst, Wiederienladungs-program (DAAD Re-Invitation Program, Jerman)	62.355.000 (4157 Euro)
8.	2013	EQUIVALENCES SINGULIÈRES ET CATÉGORIES DÉRIVÉES DES ALGÈBRES DE HOPF (ALEXANDER ZIMMERMANN (FRANCE, KETUA), INTAN MUCHTADI ALAMSYAH , YUMING LIU (CHINA), GUODONG ZHOU, <b>INDAH EMILIA WIJAYANTI</b> )	STIC ASIE, PROJECT ESCAP DU MINISTÈRE DES AFFAIRES ÉTRANGÈRES DE LA FRANCE (PERANCIS)	19.500.000 (1300 Euro)
9.	2014	Distributed Model Predictive Control for Traffic Systems with Dynamic Game Approach (Salmah, <b>Indah Emilia Wijayanti (Anggota)</b> , Abdurakhman, Jacob Engwerda, Bart de Schutter.)	Hibah Kerjasama Luar Negeri dan Publikasi Internasional, DIKTI.	150.000.000
10.	2014	Pemetaan pada Latis Submodul dan Latis Ideal Serta Hubungannya dengan Modul Komultiplikasi ( <b>Indah Emilia Wijayanti</b> – Ketua, Muhammad Ardiyansyah)	Hibah Penelitian Jurusan Matematika 2014	10.000.000