



# Edy Setiti Wida Utami

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## Personal Information

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## Employment

**1984 – Present**      **Permanent Lecturer Staff**  
*Faculty Of Science And Technology, UNAIR*

**1988**                **Lecturer**  
*Faculty Of Science And Technology, UNAIR*

**1999**                **Assistant Professor**  
*Faculty Of Science And Technology, UNAIR*

**2001**                **Associate Professor**  
*Faculty Of Science And Technology, UNAIR*

## Education

**1997 – 1983**      **Bachelor of Science (S.Si)**  
*Universitas Gadjah Mada - Yogyakarta*  
Major in Biology

**1988 – 1990**      **Master of Science (M.S)**  
*Universitas Gadjah Mada - Yogyakarta*  
Major in Biology

**2004 – 2009**      **Doctoral (Dr.)**  
**Universitas Gadjah Mada - Yogyakarta**  
Major in Biology

## Public Service Experience

- 2015** Training of isolation and DNA electrophoresis to improve the competence of high school biology teacher in Surabaya and Sidoarjo
- 2015** Training of kinship analysis by using cladistics methods for high school teacher in Surabaya and surrounding areas
- 2014** Training of isolation and protein electrophoresis to improve the competence of Biology Alumnus, Airlangga University
- 2014** Training of liquid organic fertilizer on farmer's group in district Krian, Sidoarjo
- 2011** Training of making mitosis preparation and observations of mammals spermatozoa
- 2011** Increasing competence of elementary school teacher in Surabaya in learning biology
- 2010** Increasing competence of high school teacher in Biology
- 2009** The committee in tissue culture training for community of Indonesian Orchid Association (PAI) branch Malang
- 2009** The committee in entrepreneurship internship training in laboratory and orchid house "Java Orchid" with orchid production in tissue culture
- 2009** Training of exam question making
- 2008** The speaker of training optimization florist potential in Surabaya through orchid tissue culture training
- 2008** The speaker of plant tissue culture training advanced
- 2007** The speaker of orchid tissue culture training
- 2006** The judges in National Olympic Science Junior High School Students
- 2005** The committee of training and enriching Molecular Biology in development of Biology Olympiad and learning of Competency-Based Curriculum (KBK)
- 2004** The instructor at the Biology National Olympics in High School level
- 2003** The committee in seminar and training technics and observations preparation chicken Embryo
- 2003** The instructor in socialization and training the candidates coaches biology Olympiad for senior high school teacher in Sidoarjo regency
- 2003** The instructor of Biology Olympiad training for senior high school teacher in Gresik regency
- 2003** The committee in genetics seminar and determination of blood group system ABO and Rh factors
- 2003** The instructor in training biology Olympiad and socialization of Olympic forum and the scientific competition for biology teacher
- 2002** The committee in seminar and training technics and observation rabbit embryo preparation for senior high school teacher in Surabaya
- 2001** Training of ginger planting techniques (*Zingiber officinale Rosc*) and making instant ginger in Udanawu district, Blitar
- 2001** Laboratory training and the equipment
- 2001** Training technics and observation animal embryo preparation for biology high school teacher

	in Sidoarjo
2001	Training of horticulture plant cloning for senior high school teacher in Surabaya
2001	Training of anatomy, physiology, reproduction and fertilization for senior high school teacher in Sidoarjo
2000	Training of anatomy, physiology, reproduction system, fertilization and sperm technics analysis
2000	Training of making techniques chromosome preparation for biology senior high school teacher in Sidoarjo
2000	Training of sex chromatin test of mucus membrane nucleus and leucocytes for gender determination in humans
1999	Training of anatomy, physiology, reproduction system, fertilization and sperm technics analysis
1999	Improving scientific insight of Biology teacher through laboratory utilization
1999	Utilization of tofu industrial waste liquid for making Nata de Soya in Hidayatullah Boarding School district Sukolilo, Surabaya
1997	Additional materials and fungi in food
1997	Utilization of tofu industrial waste and coconut water for making Nata de Soya dan Nata de Coco
1997	Training of tissue culture techniques and its implementation in tissue culture
1997	Improved science insight for teachers to support the implementation of education in senior high school
1997	The speaker in tissue culture training and the implementation in tissue culture
1996	The participant at the symposium science university
1995	Giving the guidance about food damage caused by fungi and addition of borax in food in terms of health
1993	Giving guidance about the maintenance of cleanliness as part of the environmental management
1993	Giving lecturers and training of chlorophyll analysis and algae identification in the material drinking water
1992	Giving guidance about food damage caused by fungi in terms of health

## Organization

2000 – Present	Indonesia Orchid Association
1995 – Present	Indonesian Biology Association

## Research Interest

- Development of Plant.
- Plant Tissue Culture.

## Research Experience

No.	Years	Title
1	2016	Transformasi Gen Knat1 Ke Dalam Protocorm Anggrek <i>Dendrobium Lasianthera</i> J. J. Sm. : Upaya Meningkatkan Produksi Bibit
2	2015	Transformation of Gene KNAT1 on Protocorm <i>D. lasianthera</i> orchid (2 <sup>nd</sup> Year)
3	2014	Transformation of Gene KNAT1 on Protocorm <i>D. lasianthera</i> orchid (1 <sup>st</sup> Year)
4	2013	Peningkatan Biomassa dan Kadar Saponin Akar Rambut Tanaman Ginseng Jawa ( <i>Talinum paniculatum</i> Gaertn). Dalam Kultur Cair. (2 <sup>nd</sup> Year)
5	2013	Peningkatan Biomassa dan Kadar Saponin Akar Rambut Tanaman Ginseng Jawa ( <i>Talinum paniculatum</i> Gaertn). Dalam Kultur Cair. (1 <sup>st</sup> Year)
6	2013	Uji Aktivitas Antimalaria Ekstrak Kalus <i>Erythrina litosperma</i> Merr. In vitro
7	2009	Induksi Embriogenesis Mikrospora Anggrek Bulan <i>Phalaenopsis amabilis</i> L (Bl.): Upaya untuk Mendapatka Tanaman Galur Murni dalam satu Generasi
8	2009	Produksi Senyawa Antimalaria dari Kalus Temuyung ( <i>Sonchus arvensis</i> ): Upaya Penanganan Penyakit Infeksi
9	2008	Induksi Embriogenesis Mikrospora Anggrek Bulan ( <i>Phalaenopsis amabilis</i> (L.) Bl): Upaya untuk mendapatkan Tanaman Galur Murni dalam satu Generasi
10	2006	Embriogenesis Somatik Anggrek Bulan ( <i>Phalaenopsis amabilis</i> (L.))
11	2003	Kajian Berbagai Zat Pengatur Tumbuh Untuk Induksi Kalus Pada Kultur Daun Jati ( <i>Tectona grandis</i> )
12	2002	Uji Keberhasilan Transformasi Gen $\beta$ -1,3-endoglukanase kedalam Tanaman Kubis ( <i>Brassica oleracea</i> var. Capitata (L.)) Menggunakan Medium Seleksi Kanamysin dan Metode PCR
13	2002	Pengaruh Iradiasi Sinar Gamma Co60 terhadap Perkembangan Embrio Somatik Tanaman Tebu <i>Saccharum spp</i>
14	2001	Studi Pengaruh Iradiasi Sinar Gamma Co60 terhadap Diferensiasi dan Pertmbuhan Plantlet Tebu ( <i>Saccharum sp</i> var PS 862) In Vitro
15	2000	Studi Pengaruh Penambahan Air Kelapa Terhadap Pertumbuhan dan Diferensiasi Pada Kultur Jaringan Jahe Merah ( <i>Zingiber officinale</i> var sunti Val)
16	1998	Uji Pendahuluan Pengaruh Ragi Roti Terhadap Diferensiasi Pada Kultur Jaringan Jahe Merah ( <i>Zingiber officinale</i> var sunti Val)
17	1998	Pengaruh Beberapa Macam Elisitor terhadap Pembentukan Alkaloid Vinkristina pada Klutur Kalus <i>Catharantus roseus</i> (L.) G Don
18	1998	Studi Struktur Serat <i>Bambusa vulgaris</i> Schrad. Sebagai Dasar Pengembangan Untuk Bahan Pembuatan Kertas
19	1996	Pengaruh Penambahan Zat Pengatur Tumbuh Terhadap Eksplan Jahe Merah ( <i>Zingiber officinale</i> var sunti Val) In Vitro
20	1995	Penyediaan Bibit Tanaman Tembakau ( <i>Nicotiana tabacum</i> (L.)) Yang Seragam Melalui Teknik Kultur Jaringan

21	1995	Pengaruh Pemangkasan dan Penambahan Giberelin (GA3) Terhadap Jumlah dan Ukuran Bunga Tanaman Mawar ( <i>Rosa sp</i> )
22	1995	Kandungan Alkaloid Vinkristin Kalus Daun <i>Catharanthus roseus</i> (L) G.Don Pada Berbagai Temperatur dan Pencahayaan
23	1994	Pengaruh Fungisida Benomil Terhadap Pembentukan Bintil Akar dan Jumlah Bakteri Rhizobium pada Tanaman Kacang Hijau ( <i>Phaseolus radiatus</i> )
24	1994	Isolasi dan Uji Viabilitas Protoplas Mesofil Daun Anggrek
25	1993	Uji Pendahuluan Pengaruh Radiasi Sinar Gamma Co60 terhadap Viabilitas Biji Kacang Hijau ( <i>Phaseolus radiatus</i> )
26	1993	Pengkajian Beberapa Media dan Kombinasi Hormon Untuk Induksi Kalus dan Diferensiasi Pada Budidaya Jaringan Melon ( <i>Cucumis melo</i> var <i>reticulatus</i> )
27	1993	Mikropropagasi Tanaman Langka Pemprov Jatim
28	1992	Isolasi Protoplas Mesofil Daun Anggrek <i>Phalaenopsis</i> Secara Enzimatis
29	1992	Pengaruh Pemberian daun <i>Annona squamosa</i> Terhadap Daya Reproduksi <i>Sitophilus oryzae</i>
30	1990	Induksi Fusi Protoplas Anggrek <i>Phalaenopsis amabilis</i> X <i>Dendrobium</i> Dengan Stimulus Medan Listrik

### Patent and Protected Right

- Metode pengembangan kalus daun pucuk mawar (*Rosa hybrid* L. Varietas hybride tea purple) dengan elisitasi cahaya untuk peningkatan kandungan Minyak Atsiri

### Publication

- Effect of sucrose and potassium nitrate on biomass and saponin content of *Talinum paniculatum* Gaertn hairy root in balloon-type bubble bioreactor. 2015. 5 (2) : 1027 – 1032 Asian Pacific Journal of Tropical Biomedicine
- Optimization of Culture Condition of *Talinum paniculatum* Gaertn. Adventitious Roots in Balloon Type Bubble Bioreactor Using Aeration Rate and Initial Inoculum Density. 2015. 8 (2) : 83 – 92 Asian Journal of Biological Science
- Leaf Culture of The Wild Orchid (*Phalaenopsis amabilis* (L.) Bl.) for Micropropagation. 2006. Proceeding of The International Science and Applied Natural Science Biologi 17. Page 1-4
- Asymbiotic Seed Germination and In Vitro Seedling Development of *Paphiopedilum liemianum* Fowlie, an Endangered Terrestrial Orchid in Northern Sumatra, Indonesia. 2015. Journal of plant Science, 10 : 25 – 34
- Agrobacterium rhizogenes Mediated Hairy Root Induction in *Justicia gendarusa* Burn.f. 2015. Journal of Applied Environmental and Biological Science, 5 (4) : 87 – 93.
- Quantity essential oil from rose callus leaf (*Rosa hybrid* L. variety Hybrid tea purple): Results of light elicitation. 2015. Journal of Pharmaceutical Research 7 (4) : 496 – 499.
- Optimasi Isolasi Protoplas Mesofil Daun Anggrek *Paraphalaenopsis laycockii*. 2015. Agrotop : Journal on Agriculture Science, 5(1) : 21 – 29.

- Induksi Regenerasi *Phalaenopsis amabilis* (L) Bl pada Berbagai Dosis Zat Pengatur Tumbuh. 2015. Online Journal of Natural Science, 4 (2) : 78 – 89.
- Pengaruh Intensitas Cahaya Terhadap Biomassa dan Kadar Saponin Kalus Ginseng Jawa (*Talinum paniculatum* Gaertn.) Pada Berbagai Waktu Kultur. jurnal Ilmiah Biologi FST, 3(1) : 56 – 66.
- Pengaruh penambahan ekstrak alga *Eucheuma cottonii* terhadap keberhasilan mikropropagasi Tebu (*Saccharum officinarum*) varietas
- Sintesis Protein Selama Embriogenesis Somatik Anggrek Bulan (*Phalaenopsis amabilis* (L.) Bl.). 2007. Biodiversitas, 8 (3) :188 – 191.
- Embriogenesis Somatik Anggrek Bulan (*Phalaenopsis amabilis* (L.) Bl.): Struktur dan Pola Perkembangan
- Pengaruh  $\alpha$ -Naphtaleneacetic Acid (NAA) Terhadap Embriogenesis Somatik Anggrek Bulan (*Phalaenopsis amabilis* (L.) Bl.). 2007. Biodiversitas, 8(4) : 295 – 299
- Studi Pengaruh Iradiasi Sinar Gamma Co60 Terhadap Diferensiasi Kalus dan Pertumbuhan Plantlet Tebu (*Saccharum spp* var. PS 862) In Vitro
- Pengaruh Elisitor (*Rhizopus oligosporus* dan *Aspergillus niger*) terhadap pembentukan Alkaloid Vinkristina pada Kultur Pucuk *Catharanthus roseus* (L) G. Don
- Studi pengaruh Penambahan Ragi roti terhadap Diferensiasi Kalus Tebu (*Saccharum spp* var PS61) In Vitro
- Studi Pengaruh Penambahan Air Kelapa terhadap Pertumbuhan Plantlet Jahe Merah (*Zingiber officinale* var Sunti Val) secara In Vitro
- Pengkajian Berbagai Konsentrasi Ragi Roti untuk Pertumbuhan Plantlet Tebu *Saccharum spp* var PS 61 In Vitro
- Pengaruh Elisitor (*Rhizopus oligosporus* dan *Aspergillus niger*) terhadap Pembentukan Alkaloid Vinkristina pada Kultur Pucuk *Catharantus roseus* (L.)
- Regenerasi Tanaman Jahe (*Zingiber officinale* Rosc Var Emprit) Melalui Kultur Mata Tunas Secara In Vitro
- Pengkajian Berbagai Konsentrasi NAA dan Kinetin untuk Pertumbuhan dan Diferensiasi pada Budidaya Jaringan Tanaman Anggur (*Vitis labrusca* var Isabella)
- Pengaruh Penambahan Zat Pengatur Tumbuh Terhadap Eksplan Paprika (*Capsicum annum* var grossum) In Vitro
- Pengaruh Penambahan Zat Pengatur Tumbuh terhadap Eksplan Jahe Merah (*Zingiber officinale* var Sunti Val) In Vitro
- Pengaruh Pemberian Daun *Annona squamosa* Terhadap Daya Reproduksi *Sitophilus oryzae*
- Penggunaan NAA dan BAP dalam Induksi Kalus Jaringan Tanaman Kantil (*Michelia alba* D.C)
- Pengkajian Beberapa Media Dan Kombinasi Hormon Untuk Induksi Kalus dan Diferensiasi Pada Budidaya Jaringan Melon (*Cucumis melo* var reticulatus)
- Pengaruh Penambahan Enzim dan Waktu Inkubasi terhadap Jumlah Protoplas Mesofil Daun Anggrek *Dendrobium*