

**LEMBAR
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW
KARYA ILMIAH : PROSIDING**

Judul Karya Ilmiah : Risk Analysis of Central Java Gas Transmission Pipeline by Risk-Based Inspection Method

Jumlah Penulis : 4 Orang

Status Pengusul : Penulis ke-2

Identitas Prosiding :

- a. Judul Prosiding : The 4th International Conference on Advanced Materials Science and Technology
- b. ISBN/ISSN : Online ISSN: 1757-899X, Print ISSN: 1757-8981
- c. Thn Terbit, Tempat Pelaks. : 2017, Universitas Negeri Malang, Indonesia
- d. Penerbit/Organiser : IOP Publishing Ltd
- e. Alamat Repository/Web : <http://iopscience.iop.org/issue/1757-899X/202/1>
Alamat Artikel : <http://iopscience.iop.org/article/10.1088/1757-899X/202/1/012094>
- f. Terindeks di (jika ada) : Scopus

Kategori Publikasi Makalah : Prosiding Forum Ilmiah Internasional
(beri ✓ pada kategori yang tepat) Prosiding Forum Ilmiah Nasional

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Komponen Yang Dinilai	Nilai Reviewer		Nilai Rata-rata
	Reviewer I	Reviewer II	
a. Kelengkapan unsur isi prosiding (10%)	3,00	3,00	3,00
b. Ruang lingkup dan kedalaman pembahasan (30%)	8,00	7,50	7,75
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	8,00	8,50	8,25
d. Kelengkapan unsur dan kualitas terbitan/prosiding(30%)	8,00	8,50	8,25
Total = (100%)	27,00	27,50	27,25
Nilai Pengusul = (40% x 27,25)/3 = 3,63			

Semarang, 1 November 2018

Reviewer 2

Rusnaldy, S.T., M.T., Ph.D.
NIP. 197005201999031002
Unit Kerja : T. Mesin FT UNDIP

Reviewer 1

Dr. Agus Suprihanto, S.T., M.T.
NIP. 197108181997021001
Unit Kerja : Teknik Mesin FT UNDIP

**LEMBAR
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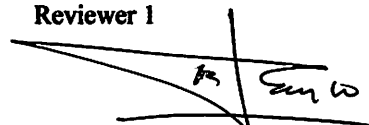
Komponen Yang Dinilai	Nilai Maksimal Prosiding		Nilai Akhir Yang Diperoleh
	Internasional <input type="checkbox"/>	Nasional <input type="checkbox"/>	
a. Kelengkapan unsur isi prosiding (10%)	3,00		3,00
b. Ruang lingkup dan kedalaman pembahasan (30%)	9,00		8,00
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	9,00		8,00
d. Kelengkapan unsur dan kualitas terbitan/prosiding(30%)	9,00		8,00
Total = (100%)	30,00		27,00
Nilai Pengusul = (40% x 27,00)/3 = 3,60			

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- Kesesuaian dan kelengkapan unsur isi paper:**
Makalah ditulis secara lengkap dan sistematis, telah sesuai dengan petunjuk penulisan yang ada dalam seminar/prosiding. Sesuai dengan bidang keilmuan pengusul (Reliability Material) (nilai: 3,00).
- Ruang lingkup dan kedalaman pembahasan:**
Substansi yang disampaikan dalam artikel sesuai dengan ruang lingkup seminar/prosiding (nilai: 8,00).
- Kecukupan dan kemutakhiran data/informasi dan metodologi:**
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- Kelengkapan unsur dan kualitas terbitan:**
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Semarang, 14 Mei 2019

Reviewer 1



Dr. Agus Suprihanto, S.T, M.T.
 NIP. 197108181997021001
 Unit kerja : Teknik Mesin FT UNDIP

**LEMBAR
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Komponen Yang Dinilai	Nilai Maksimal Prosiding		Nilai Akhir Yang Diperoleh
	Internasional <input type="checkbox"/>	Nasional <input type="checkbox"/>	
a. Kelengkapan unsur isi prosiding (10%)	3,00		3,00
b. Ruang lingkup dan kedalaman pembahasan (30%)	9,00		7,50
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	9,00		8,50
d. Kelengkapan unsur dan kualitas terbitan/prosiding(30%)	9,00		8,50
Total = (100%)	30,00		27,50
Nilai Pengusul = $(40\% \times 27,50)/3 = 3,67$			

Catatan Penilaian Paper oleh Reviewer :

- Kesesuaian dan kelengkapan unsur isi paper:
Substansi artikel sesuai dengan bidang keahlian pengusul, tata tulis artikel baik dan sesuai dengan acuan. (nilai: 3,00)
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Semarang, 14 Mei 2019

Reviewer 2

Rusnaldy, S.T., M.T., Ph.D.
 NIP. 197005201999031002
 Unit kerja : Teknik Mesin FT UNDIP

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Volume 202, Issue 1, 31 May 2017, Article number 012094
4th International Conference on Advanced Materials Science and Technology 2016, ICAMST
2016; Universitas Negeri MalangMalang; Indonesia; 27 September 2016 through 28 September
2016; Code 128367

Risk Analysis of Central Java Gas Transmission Pipeline by Risk-Based Inspection Method (Conference Paper) (Open Access)

Mediansyah^a ✉, Haryadi, G.D.^a, Ismail, R.^a, Kim, S.J.^b 🔍

^aDepartment of Mechanical Engineering, Diponegoro University, Jl. Prof. Soedharto, Tembalang, Semarang, 50275, Indonesia

^bDepartment of Mechanical and Automotive Engineering, Pukyong National University, Busan, 608-739, South Korea

Abstract

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During the operational period of gas transmission pipeline was found a potential hazard that could result in pipeline failure. As a consequence, the problem of the pipeline failure happening more and more. Economic and environmental factors, as well as human life, be considered to involve the current challenges as structural integrity and safety standards. Therefore, the reliability of structural integrity and security of gas pipelines under various conditions, including the existence of defects should be carefully evaluated. The results of this study were the steps for setting a Risk Level on any instrument using the Risk-Based Inspection API 581 standard and the subsequent results are recommended as an effective inspection planning by Risk Level and Remaining Life Time. © Published under licence by IOP Publishing Ltd.

SciVal Topic Prominence ⓘ

Topic: Inspection | Risks | Inspection RBI

Prominence percentile: 75.551 ⓘ

Author keywords

Pipe remaining life time risk risk level risk-based inspection

Indexed keywords

Engineering controlled terms: Gas pipelines Inspection Natural gas pipelines Natural gas transportation Pipe Pipelines Risk assessment Risks Structural integrity

Engineering uncontrolled terms: Environmental factors Gas transmission pipeline Inspection planning Operational periods Pipeline failures Remaining life Risk based inspection Risk levels

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□ 8 Prayogo, G.S., Haryadi, G.D., Ismail, R., Kim, S.J.
Risk analysis of heat recovery steam generator with semi quantitative risk based inspection
(2015) *API*, 581.

□ 9 Noori, S.A., Price, J.W.H.
A risk approach to the management of boiler tube thinning
(2006) *Nuclear Engineering and Design*, 236 (4), pp. 405-414. Cited 25 times.
doi: 10.1016/j.nucengdes.2005.09.019

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Corrosion risk analysis, risk based inspection and a case study concerning a condensate pipeline ([Open Access](#))

(2014) *Procedia Engineering*, 86, pp. 597-605. Cited 13 times.
<http://www.sciencedirect.com/science/journal/18777058>
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Study of a risk-based piping inspection guideline system
(2007) *ISA Transactions*, 46 (1), pp. 119-126. Cited 21 times.
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doi: 10.1016/j.isatra.2006.06.006

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□ 12 Api
(2000) *Risk-based Inspection Based Resource Document*. Cited 259 times.

🔍 Mediansyah, ; Department of Mechanical Engineering, Diponegoro University, Jl. Prof. Soedharto, Tembalang, Semarang, Indonesia; email: mediansyah@rocketmail.com

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Preface

The 4th International Conference on Advanced Materials Science and Technology 2016 (ICAMST-2016).

International Conference on Advanced Materials Science and Technology 2016 (ICAMST-2016) is an international forum for sharing knowledge and results in theory, computation, synthesis, characterization in all aspects of advanced materials and its technological application. This ICAMST is designated to promote research interests, knowledge sharing, and transfer, as well as to improve our common ground of science and technology.

The conference has brought together researchers and academicians from both academia as well as industry to meet and share cutting-edge development in the field. The Conference welcomes significant contributions in all major fields of theoretical & analyses, synthesis & Characterization, nanoscience, Functional Materials. This volume is a collection of 100 selected from 212 manuscripts by 503 authors. These papers were presented at the International Conference on Advanced Materials Science and Technology 2016 (ICAMST-2016) which was held in Malang, Indonesia, September 27 - 28, 2016. The selection of papers included in this volume was based on an international peer review procedure. We feel the variety of topics will be of interest to researchers.

I would like to thank:

- The Scientific Committee of ICAMST 2016 for their precious contribution.
- The distinguished keynote speakers and invited speakers for their difficult task and unique lectures Prof. Dr. Takayuki Ishida (Japan); Prof Dong-Sing Wu (Taiwan), Assoc. Prof. Dr. Graeme R. Blake (The Netherlands), Prof. Dr. Andriwo Rusydi (Singapore), Prof. Dr. Robert Jann (Taiwan), Prof. Hadi Nur, Universiti Teknologi Malaysia (Malaysia), Prof. Dr. Darminto, Indonesia, Dr. Edy Giri Rachman Putra (Indonesia), Dr. Atsushi Okazawa (Japan), Dr. Hendrik Lintang (Indonesia), on their respective fields of expertise.
- The Organizing Committee Prof. Arif Hidayat (UM), Prof. Khairurijal (ITB), Assoc. Dr. Nandang Mufti, Dr. Sunaryono, Dr. Ahmad Taufiq, Assoc. Prof. Kuwat Triyana (UGM), for their dedication.
- The Institute of Physics for the inclusion of these proceedings into the famous series of the IOP Conference Proceedings. Material Sciences and Engineering.
- PT. KGC-LJUVH Technology, Rigaku-Lab Sistematika, Vanadia, Eramitra Perdana, and PT Indotech for their sponsorship.
- My sincere thanks goes to Prof. Ahmad Rofi'udin, the Rector of Universitas Negeri Malang, for the valuable supports.

I would also like to express my gratitude to all authors and contributing reviewers. Last but not least, my special thanks goes to the respectable the president of KoSaTeM Consortia, Prof. Khairurijal, and his team.

Assoc. Prof. Dr. Markus Diantoro

Chairman of ICAMST 2016

Editor-in-Chief of ICAMST 2016

Department of Physics, Faculty of Mathematics and Natural Sciences,
Universitas Negeri Malang, Jl. Semarang 5 Malang 65145, Indonesia



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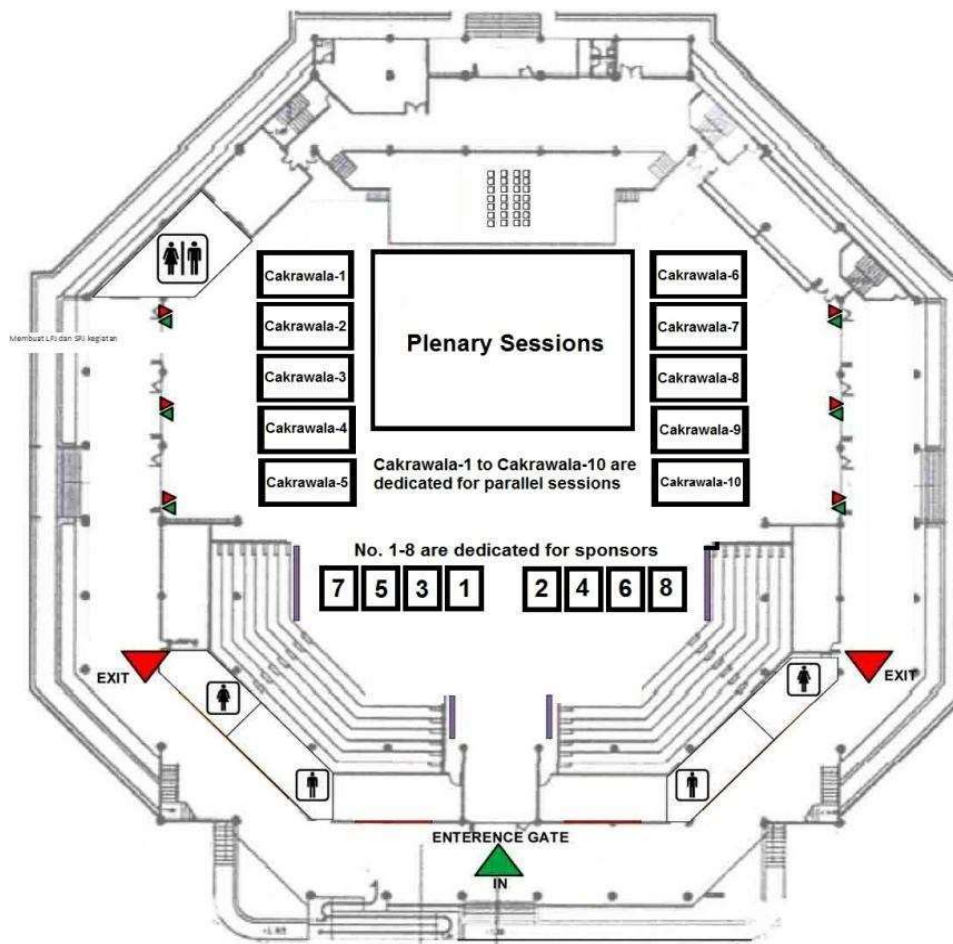
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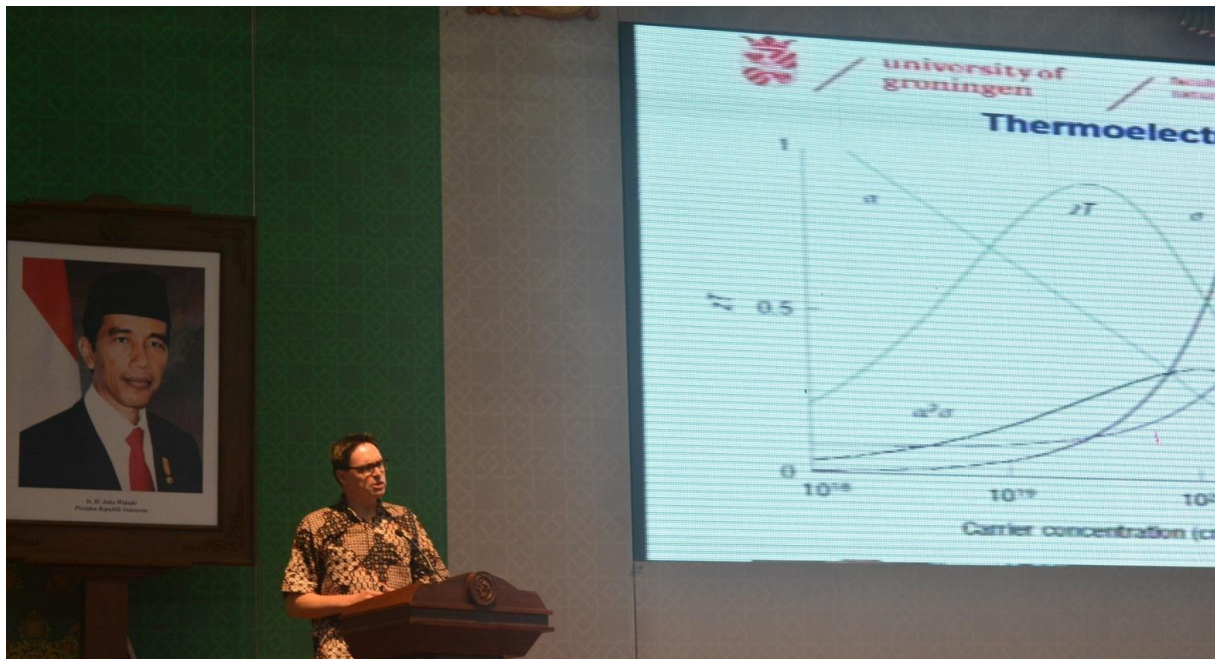
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C2	Bank BNI Cabang Pembantu UM	I11	LP2P
C3	UKM 1	J	Graha Rektorat
D1-D2	Fakultas Ilmu Pendidikan	K1	SD Percobaan
D3-D5	Gedung Ekonomi	K2	SD Laboratorium UM
D7-D8	Fakultas Sastra	K3	TK Laboratorium UM
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E1	Gedung Ilmu Pendidikan 1	L2	Poliklinik
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G5	Gedung Teknik 4, Jurusan Teknologi Industri	R1	Penerbit Percetakan UM
G6	Gedung Teknik 5, Jurusan Teknologi Industri	R2	Garasi
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H2	Gedung Pascasarjana 2	S5-S10	Wisma UM
H3	Gedung Pascasarjana 3	S4	Pusat Pengkajian Pancasila
H4	LP2M	T1,T3	UPP PGSD 1
H5	Fakultas Teknik	T4,T6	UPP PGSD 1
H6	KPRI	T2	Fakultas Ilmu Keolahragaan
H7	LP3M	T5	SD Laboratorium UM
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I1	Ukm 2	RD	Rumah Dinas
I2	Gedung Ekonomi 4	WTL	Warung Telekomunikasi
I3	Gedung Ekonomi 5	LT	Lapangan Tenis
I4	Gedung Ekonomi 6	LSB	Lapangan Sepakbola
I5	Gedung Ekonomi 7	LB	Lapangan Basket
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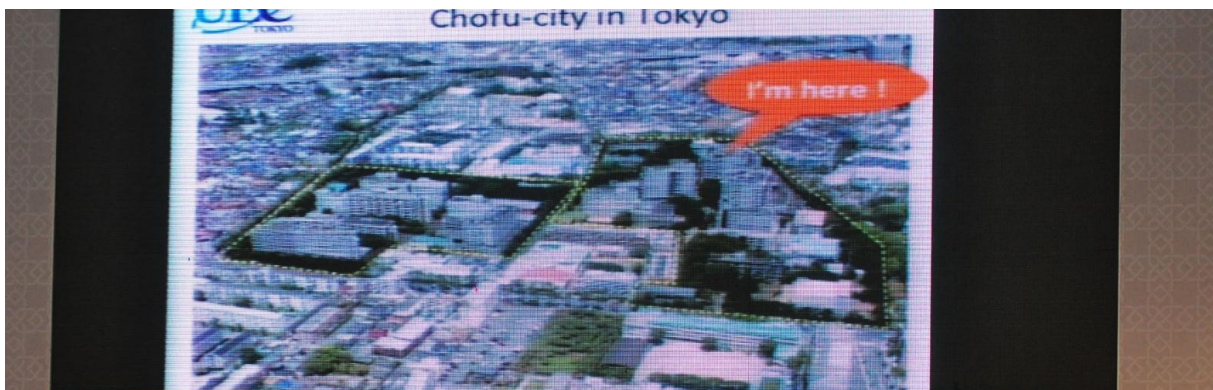






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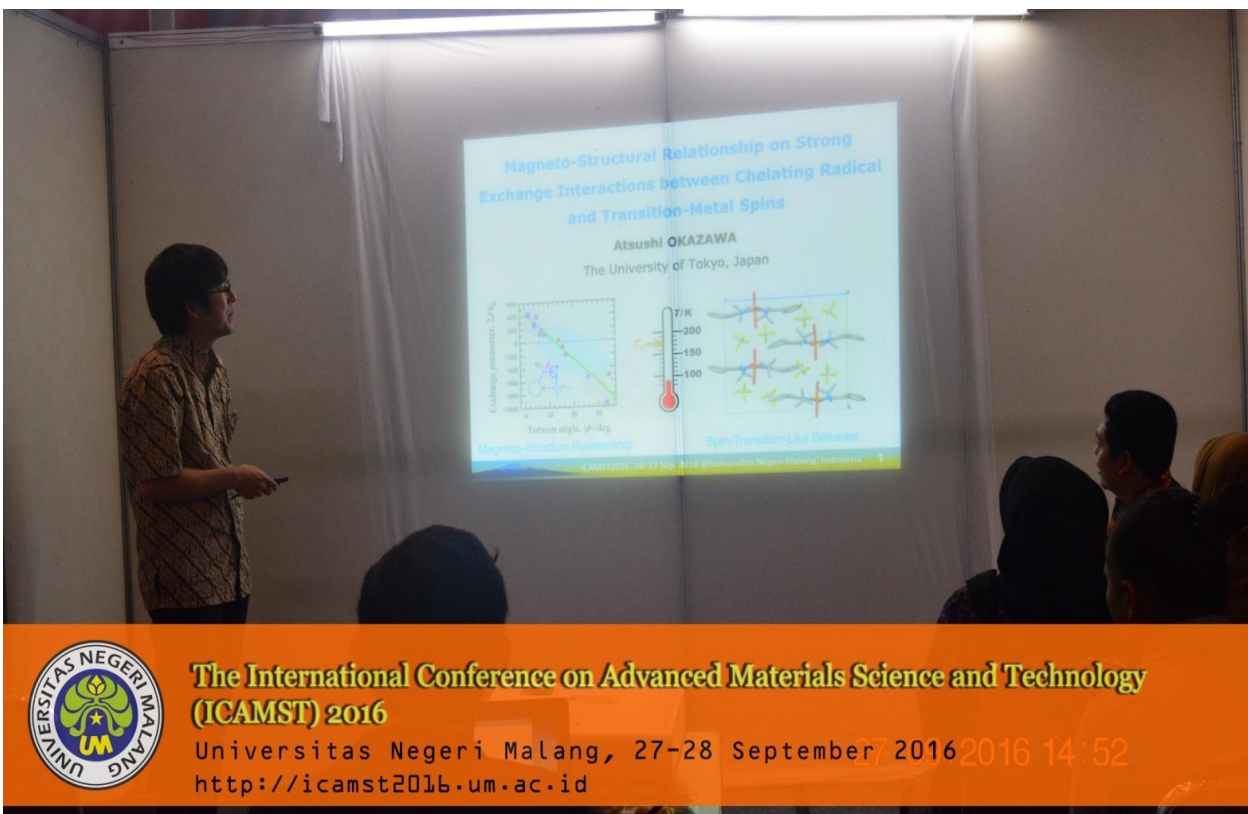
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