



***Strengthened Indonesian Resilience:
Reducing Risk from Disasters
(StIRRRD)***



²Universitas Gadjah Mada,
¹GNS Science International,
Ministry of Foreign Affairs and Trade (MFAT)
New Zealand Aid Programme
³In association with Beca.



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BIBLIOGRAPHIC REFERENCE

Glasse, P.J.; Whittaker, D.; Satyarno, I.; Whittle, G. 2015. Base Isolation Training, Padang, 9–13 February 2015, *GNS Science International Consultancy Report 2015/05*. 15 p + Appendices.

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EXECUTIVE SUMMARY

As part of the Expert Training component of the Strengthened Indonesian Resilience Reducing Risk from Disasters (StIRRRD) programme, Base Isolation training was held over 5 days in Padang from 9–13 February 2015. The training was organised by Universitas Gadjah Mada (UGM), Universitas Andalas (UNAND), Beca NZ and GNS Science.

Participants came from Local Government (representing 4 provinces and 5 StIRRRD districts), National Government, Private consultants and Universities. Fifteen women attended the training plus Georgia Whitla, from Beca, who prepared and presented much of the training material. There was a range of the level of engineering understanding across the participants, but structural engineering dominated.

The training involved a series of lectures and discussion sessions, practical group design work and a half-day field visit to three base-isolated buildings in Padang, including a tour of the base-isolated features of the Ibis Hotel, where the training was held. Topics covered included concepts of Base Isolation, design of new buildings and retrofit of structures including bridges, details of isolation systems and service connections, base isolation of tsunami shelters, and treatment of base isolated buildings after earthquakes.

Indonesian case studies were utilised in the workshop. A retrofit base-isolation design of Palu Hospital was given as an example, and the proposed design of the new Mayor's Office in Bengkulu City was presented by representatives from Bengkulu and used as an impromptu group design exercise.

A post training questionnaire indicates that the training met or exceeded the participant's expectations, and they considered the content was appropriate and would be useful in their work. The field visit proved popular and useful in demonstrating examples of base-isolation. The presenters and the quality of the venue were evaluated as both being very good.

There was good engagement by the participants, with much discussion, questions and engagement, with requests for additional material and additional training in Base Isolation. Future training options should be explored.

Lessons learnt from the questionnaire and observations made include:

- Future similar technical training should be conducted primarily in Bahasa Indonesian with only some specialist input given in English. Alternatively simultaneous translation should be provided.
- Incorporate more interactive team exercises into the training.
- UGM and UNAND should lead future base-isolation training in Indonesia with specialist input from New Zealand expertise as required.
- The participants for technical training should have appropriate expertise and be carefully selected.
- There was considerable interest in the topic and options for follow up and further training need to be explored.

1.0 INTRODUCTION

As part of the Expert Training component of the Strengthened Indonesian Resilience Reducing Risk from Disasters (StIRRRD) project, Base Isolation training was held over 5 days at the Ibis Hotel, Padang from 9–13 February 2015. Significantly, the Ibis Hotel is a modern, base-isolated, 11-storey building, and six base isolators are on display in the basement of the building.

The training was a collaborative effort by Universitas Gadjah Mada (UGM), Universitas Andalas (UNAND), Beca and GNS Science. UNAND has a MoU with UGM and the province of West Sumatra to provide science and technology input into Disaster Risk Reduction in West Sumatra and to the StIRRRD programme. The training programme was designed to include a series of presentation and discussion sessions, practical group design work and a half-day field visit to 3 base-isolated buildings in Padang.



Photo 1 The base isolated Ibis Hotel in Padang where the training was held.

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2.0 TRAINING PROGRAMME

The training programme is given in Appendix 1.

2.1 PRESENTERS

The majority of the training was delivered by two seismic engineers from Beca, New Zealand; experienced base isolation specialist Dr David Whittaker assisted by Ms Georgia Whitla.



Photo 2 Presenters Georgia Whitla (left) and David Whittaker from Beca (right).

In addition presentations were given on the concepts of base isolation and foundation conditions, using Padang examples by Dr Febrin Anas Ismail and Dr Abdul Hakam from UNAND. Dr Ismail and his team were integral to the design of the Ibis Hotel building and the training benefitted greatly from his team's knowledge and experience of base isolation and specifically UNAND's understanding of the buildings visited in the field visit.



Photo 3 Dr Febrin Ismail from Universitas Andalas. Photo: G Maylda Pratama, UGM.

A presentation on the new seismic hazard, and determination of peak ground accelerations for input into seismic design for Indonesia was given by Dr Teuku Faisal Fathani, UGM, StIRRRD Project Director. Seismic engineer, Prof Iman Satyarno, UGM, presented on the new Indonesian seismic design code.



Photo 4 Presenters Dr Faisal Fathani (left) and Prof Iman Satyarno (right). Photos: G Maylda Pratama, UGM.

Phil Glassey, GNS Science gave a brief introduction to the StIRRRD programme and how, Base Isolation fits into the programme.

2.2 TRAINING PARTICIPANTS

45 participants, excluding the presenters, attended the training. The list of participants is given in Appendix 2. Participants came from local government (representing 4 provinces and 5 StIRRDR districts), national government, private consultants and universities. Twelve participants were funded to attend by the StIRRDR programme; 3 from Palu, 3 from Pesisir Selatan, 2 from Kota Bengkulu, 2 from Mataram and 2 from national government agencies (Ministry of Public Works and Bappenas). Fifteen women attended the training plus Georgia Whitla, from Beca, who prepared and presented some of the training material. There was a range of the level of engineering understanding across the participants, but the majority had structural or civil engineering expertise. Some participants representing government organisations that had an interest in providing resilient buildings and infrastructure (e.g. Health, Transport, and Human Settlements) were not structural engineers, but had associated expertise in geotechnical engineering, architecture, spatial planning or quantity surveying. A summary of the representation and specialities of the participants is given in Table 1 and Figure 1, respectively.

Table 1 Summary table of training participants.

	University	Government	Private Sector	TOTAL
Kota Padang	16	4		20
Pesisir Selatan		3		3
West Sumatra Province	2	3		5
Kota Palu	2	4		6
Kota Mataram	1	1		2
Kota Bengkulu	1	1		2
National		3	4	7
TOTAL	22	19	4	45

Speciality of Participants

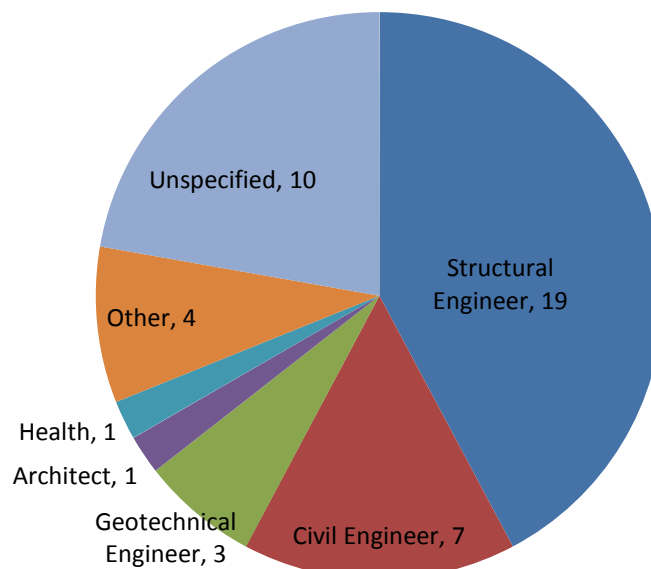


Figure 1 Breakdown of the specialities of the participants of the base isolation training.

2.3 TRAINING CONTENT



Photo 5 Participants in the Base Isolation workshop. Photo: Phil Glassey, GNS.

The training involved a series of presentations and discussion sessions, practical group design work and a half-day field visit to 3 base-isolated buildings in Padang (including a tour of the base-isolated features of the Ibis Hotel).

The training covered concepts of base isolation; design of new buildings and retrofit of structures including bridges, details of isolation systems and service connections, base isolation of tsunami shelters, and treatment of base isolated buildings after earthquakes.

The presentations were given in a mixture of English and Bahasa Indonesia. The level of English understanding in the training participants ranged from none to very good. The English presentation powerpoint slides were translated prior to the course delivery and provided to the participants in a 300 page volume to allow the trainees to follow the content. The English presentations were periodically summarised by Prof Iman in Bahasa Indonesian, which stimulated many questions and discussion.

Examples of base isolated structures from New Zealand, California, Japan, Turkey and Peru were presented and Indonesian examples from Padang and Jakarta were highlighted. In addition a retrofit base-isolation design of Palu Hospital was used in a case study working example.

The design of the new Mayor's Office in Bengkulu City was presented by Firjoni Aprianto, Public Works Agency, Kota Bengkulu as an example of projects that the participants had in mind that might benefit from base isolation. The building is to be used as an Emergency Centre. The course facilitators decided at relatively short notice to utilise this building in a group exercise where the design parameters of base isolating the building were determined. There was good engagement of the groups with the exercise.



Photo 6 Trainees work on the Group exercise. Photo: Phil Glassey, GNS.

2.4 FIELD VISIT

Three base-isolated buildings in Padang were visited.

2.4.1 Ibis Hotel

The Ibis Hotel is a 13 level base-isolated hotel built about 2011. Some of the base isolators are on display in the basement. Universitas Andalas staff were involved in the design.



Photo 7 A rubber base isolator on display in the basement of the Ibis Hotel. Photo: Phil Glassey, GNS.



Photo 8 The stairs from the basement to the lobby are cut along the isolation plane (arrowed) to allow them to move with the isolation system. Photo: Phil Glassey, GNS.



Photo 9 Services to the Hotel have flexible joints that allow for movement during earthquake shaking. Photo: Phil Glassey, GNS.

2.4.2 Public Works Building

The Public Works Agency building of Sumatera Barat is four levels. It also acts as a tsunami evacuation centre.



Photo 10 The base isolated Public Works Agency office of Sumatera Barat. Photo: Phil Glassey, GNS.



Photo 11 Workshop participants pose for photos in front of a base-isolator in the foundation of the Public Works building. Photo: Phil Glassey, GNS.



Photo 12 Flexible service joints in the Public Works Building. Photo: Phil Glassey, GNS.

2.4.3 The Governor's Office

The Sumatera Barat Governor's Office is a four level building that acts as a tsunami evacuation shelter. The building was constructed in 2011 after the 2009 Padang earthquake damaged the old building. Access to the basement to see the base isolation was hindered by the storage of other equipment.



Photo 13 Governor's Office of Sumatera Barat. Photo: Phil Glassey, GNS.



Photo 14 Base isolator beneath the Governor's office. Photo: Phil Glassey, GNS.



Photo 15 Flexible service joints into the Governor's building. Photo: Phil Glassey GNS.

3.0 EVALUATION

3.1 POST-WORKSHOP QUESTIONNAIRE

A post-workshop evaluation questionnaire was completed by 37 participants. The questionnaire is given in Appendix 3 and analysis of the responses is given in Appendix 4.

The workshop met or exceeded the participant's expectations and they considered it would be useful in their work (Figure A1 and Figure A2). Generally the content was considered appropriate for the audience, although some participants, without engineering may have struggled with the technical engineering aspects presented (Figure A3). Most thought there was sufficient opportunity to discuss key topics (Figure A4), but the results indicate there is an opportunity to increase the time for discussion. The field visit proved popular and useful in demonstrating examples of base-isolation (Figure A5).

The presenters and the quality of the venue were also evaluated, and in general the participants considered that both were very good. Overall the participants were pleased with the workshop, finding it more than good value (Figure 2).

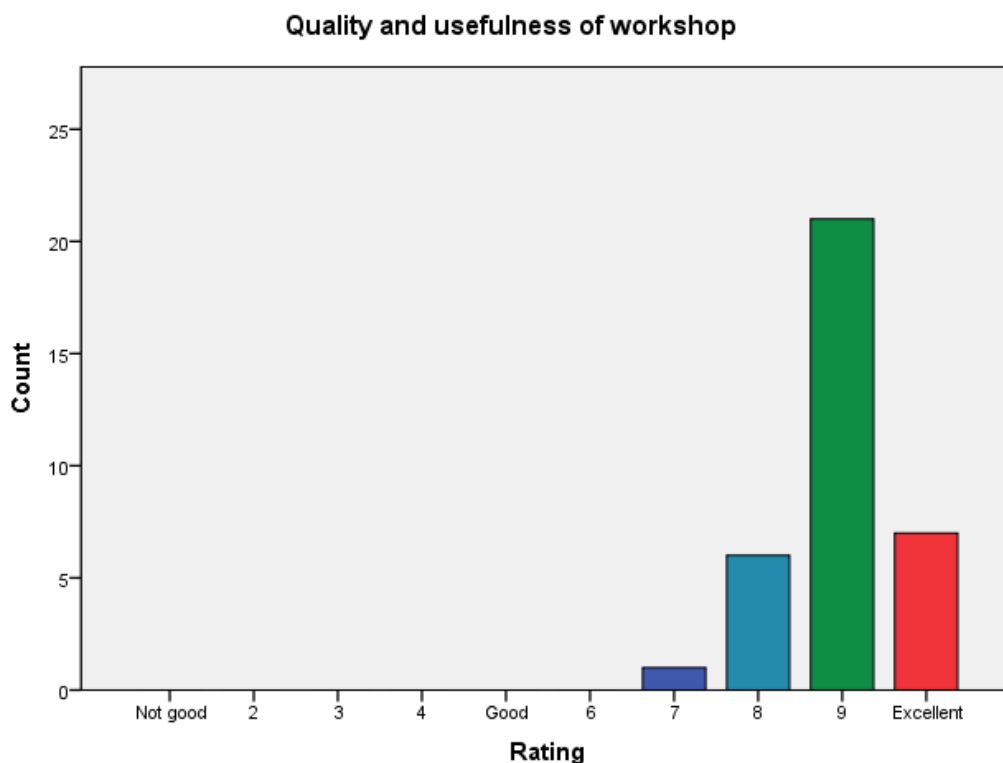


Figure 2 Quality and usefulness of workshop.

3.2 OTHER OBSERVATIONS

Presenting the technical detail in English at times seemed to be a barrier to understanding for the participants. While some participants had excellent English, many did not. As a result, Prof Iman provided a summary of the English presentations in Bahasa Indonesia, led the discussion sessions in Bahasa Indonesian and translated questions as required.

The initial intent of the course was that the first day was to be a general knowledge session on base-isolation and its benefits suitable for non-engineering audience including policy makers, followed by detailed analysis and design of base isolation more suited to engineering audiences. It was a surprise that many without engineering speciality also enthusiastically attended the second part of the course.

Participants with associated expertise struggled at times to follow the technical content of the course. However, the majority had structural engineering backgrounds and the questions asked were highly technical and relevant indicating good engagement with the topic.

Despite, language and expertise, there was good engagement by the participants, with much discussion and questions, many of them asked in English and highly technical. There was considerable engagement with the presenters during breaks and requests for course material and additional material. In addition, there were questions regarding when the next course in Base Isolation is to be held. Future training options should be explored.

The potential for base isolation of the Bengkulu Mayor's Office and the new hospital in Painan (Pesisir Selatan) engendered much discussion, and it was considered that the possibility of base isolating these buildings should be investigated further by the StIRRRD team.

4.0 LESSONS LEARNT

Future similar technical training should probably be conducted primarily in Bahasa Indonesian with only some specialist input given in English, or simultaneous translation should be provided where the majority of the course has to be given in English.

UGM and UNAND could lead future base-isolation training in Indonesia with specialist input from Beca as required.

The participants for technical workshops should have an appropriate background in the topic and be carefully selected.

More interactive team exercises should be incorporated into the training.

There is considerable interest in the topic and scope for further training. The participants should be solicited, by email, with regard to their expectations regarding further training in base-isolation, and options explored.

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APPENDICES

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APPENDIX 1: TRAINING PROGRAMME



Strengthened Indonesian Resilience: Reducing Risk from Disasters (StIRRRD)
Penguatan Ketangguhan Indonesia melalui Pengurangan Risiko Bencana
 Kerjasama UGM - GNS dan didukung MFAT NZAid

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 Mobile: 081123696614 Fax: 0274-545676 E-mail: StIRRRD@gmail.com



NEW ZEALAND
 FOREIGN AFFAIRS & TRADE
 Aid Programme

Agenda Acara: Pelatihan Base Isolation

Kerjasama antara **UGM, GNS Science, Beca** dan **Universitas Andalas**,
 Didukung oleh **Ministry of Foreign Affairs and Trade (MFAT)** Selandia Baru-NZAid Program

Tempat : Hotel Ibis, Kota Padang
 Hari/tanggal : Senin-Jumat, 9-13 Februari 2015

Hari	Pukul	Topik	Penanggung jawab
Senin, 9 Februari 2015	08.00 - 08.30	Registrasi	Panitia
	08.30 - 09.00	Pembukaan Pelatihan Base Isolation, Pengenalan Kegiatan StIRRRD, Perkenalan Beca	Dr. Faisal Fathani dan Phil Glassey
	09.00 - 10.30	Pengertian <i>Base Isolation</i>	Beca
	10.30 - 10.45	Coffee Break	Panitia
	10.45 - 12.45	Penggunaan <i>Base Isolation</i> di Beberapa Gedung di Padang	Dr. Febrin Anas Ismail Dr. Abdul Hakam (UNAND)
	12.45 - 13.30	Ishoma	Panitia
	13.30 - selesai	Kunjungan Lapangan ke Gedung yang Telah Menerapkan <i>Base Isolation</i>	Dr. Febrin Anas Ismail Dr. Abdul Hakam (UNAND)
Selasa, 10 Februari 2015	08.00 - 08.30	Registrasi	Panitia
	08.30 - 10.30	Sifat Teknis <i>Base Isolation</i> , seperti: K_{eff} , F_v , r , kurva histeresis	Beca
	10.30 - 10.45	Coffee Break	Panitia
	10.45 - 12.45	Penentuan <i>Peak Ground Acceleration</i> (PGA) dan Input Seismik	Dr. Faisal Fathani Prof. Iman Satyarno (UGM)
	12.45 - 13.30	Ishoma	Panitia
	13.30 - 15.30	Pemodelan <i>Base Isolation</i> dan Pengaruh Sifatnya Terhadap Respon Gedung	Prof. Iman Satyarno (UGM)
Rabu, 11 Februari 2015	08.00 - 08.30	Registrasi	Panitia
	08.30 - 10.30	Perancangan <i>Base Isolation</i> Pada Gedung Baru	Beca
	10.30 - 10.45	Coffee Break	Panitia
	10.45 - 12.45	Studi Kasus: Contoh Perancangan <i>Base Isolation</i> pada Gedung Baru	Beca
	12.45 - 13.30	Ishoma	Panitia
	13.30 - 15.30	Perancangan <i>Base Isolation</i> pada Gedung Eksisting	Beca
Kamis, 12 Februari 2015	08.00 - 08.30	Registrasi	Panitia
	08.30 - 10.30	Studi Kasus: Contoh Perancangan <i>Base Isolation</i> pada Gedung Eksisting	Beca
	10.30 - 10.45	Coffee Break	Panitia
	10.45 - 12.45	Penempatan <i>Base Location</i> dan Perancangan Kelengkapan Gedung Seperti Keperluan Mekanikal dan Elektrikal	Beca
	12.45 - 13.30	Ishoma	Panitia
	13.30 - 15.30	Studi Kasus: Pembangunan <i>Base Isolation</i> pada Bangunan Baru	Beca
Jumat, 13 Februari 2015	08.00 - 08.30	Registrasi	Panitia
	08.30 - 10.30	Studi Kasus: Pembangunan <i>Base Isolation</i> pada Bangunan Eksisting	Beca
	10.30 - 12.00	Evaluasi Bangunan yang Mengaplikasikan <i>Base Isolated</i>	Beca
	12.00 - 13.30	Ishoma	Panitia
	13.30 - 15.30	Perawatan Bangunan yang Menggunakan <i>Base Isolated</i> Setelah Gempa Besar	Beca



Strengthened Indonesian Resilience: Reducing Risk from Disasters (StIRR RD)
Penguatan Ketangguhan Indonesia melalui Pengurangan Risiko Bencana
 Kejasama UGM - GNS dan didukung MFAT NZAid

Sekretariat Jurusan Teknik Sipil dan Lingkungan FT UGM, Jl. Grafika No. 2 Yogyakarta 55281
 Mobile: 081123296614 Fax: 0274-545676 E-mail: StIRR RD@gmail.com



Agenda: Base Isolation Training

Collaboration of **UGM, GNS Science, Beca** and **Universitas Andalas**,
 And supported by *Ministry of Foreign Affairs and Trade (MFAT)* Selandia Baru-NZAid
 Program

Place : Hotel Ibis, Kota Padang
 Date : Monday-Friday, 9-13 February 2015

Day	Time	Topic	PIC
Monday, 9 February 2015	08.00 - 08.30	Registration	UGM
	08.30 - 09.00	Welcome Speech for Base Isolation Training, Introduction to StIRR RD program, Introduction to Beca	Dr. Faisal Fathani dan Phil Glassey
	09.00 - 10.30	What is base isolation	Beca
	10.30 - 10.45	Coffee Break	UGM
	10.45 - 12.45	Application of base isolation in some buildings in Padang	Dr. Febrin Anas Ismail Dr. Abdul Hakam (UNAND)
	12.45 - 13.30	Lunch	UGM
	13.30 - selesai	Site visit to isolated buildings in Padang	Dr. Febrin Anas Ismail Dr. Abdul Hakam (UNAND)
Tuesday, 10 February 2015	08.00 - 08.30	Registration	UGM
	08.30 - 10.30	Engineering properties of base isolation such as Keff, F_y , r , hysteresis loops	Beca
	10.30 - 10.45	Coffee Break	UGM
	10.45 - 12.45	Determination of seismic input and <i>Peak Ground Acceleration</i> (PGA)	Dr. Faisal Fathani Prof. Iman Satyarno (UGM)
	12.45 - 13.30	Lunch	UGM
13.30 - 15.30	Base isolation modelling and effect of its properties on building's response	Prof. Iman Satyarno (UGM)	
Wednesday, 11 February 2015	08.00 - 08.30	Registration	UGM
	08.30 - 10.30	Base isolation design on new buildings	Beca
	10.30 - 10.45	Coffee Break	UGM
	10.45 - 12.45	Case studies: New isolated buildings - design and construction PART ONE	Beca
	12.45 - 13.30	Lunch	UGM
13.30 - 15.30	Case studies: New isolated buildings - design and construction PART TWO	Beca	
Thursday, 12 February 2015	08.00 - 08.30	Registration	UGM
	08.30 - 10.30	Base isolation design for existing buildings	Beca
	10.30 - 10.45	Coffee Break	UGM
	10.45 - 12.45	Base isolation location and design of building utilities such as mechanical and electrical utilities	Beca
	12.45 - 13.30	Lunch	UGM
13.30 - 15.30	Case studies: Isolation of existing buildings - design and construction PART ONE	Beca	
Friday, 13 February 2015	08.00 - 08.30	Registrasi	UGM
	08.30 - 10.30	Case studies: Isolation of existing buildings - design and construction PART TWO	Beca
	10.30 - 12.00	Evaluation of base isolated buildings	Beca
	12.00 - 13.30	Friday praying and lunch	UGM
	13.30 - 15.30	Based isolated building treatment after big earthquakes	Beca

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APPENDIX 2: TRAINING PARTICIPANTS

Attendees - Base Isolation Training, Padang, 9 -13 February 2015

Name	Position	Institution/organisation	Province/District	Sector	Expertise
Ni Nyoman Kencanawati, ST, MT, Ph.D.	Lecturer, Civil Engineering	Universitas Matararam	Matararam	University	Structural
Agustin Gunawan, ST., M.Eng	Lecturer, Civil Engineering	Universitas Bengkulu	Bengkulu Kota	University	Structural
I Ketut Sulendra, ST, MT	Lecturer, Civil Engineering	Universitas Tadulako	Palu	University	Structural
Fatmawati Amir, ST., M.Eng	Lecturer, Civil Engineering	Universitas Tadulako	Palu	University	Structural
Ir. Taufik, MT	Lecturer, Civil Engineering	Universitas Bung Hatta	Padang	University	Structural
Dr. Rini Mulyani, ST, M.Sc.Eng	Lecturer, Civil Engineering	Universitas Bung Hatta	Padang	University	Structural
Drs. Revian Body, MSA	Lecturer, Civil Engineering	Universitas Negeri Padang	Padang	University	Structural
Prima Yane Putri, ST., MT.	Lecturer, Civil Engineering	Universitas Negeri Padang	Padang	University	Structural
Rusnardi Rahmat Putra, ST, MT, PhD, M.Eng	Lecturer, Civil Engineering	Universitas Negeri Padang	Padang	University	Structural
Nevy Sandra, ST., M. Eng	Lecturer, Civil Engineering	Universitas Negeri Padang	Padang	University	Structural
Fauzan	Lecturer	Universitas Andalas	Padang	University	Structural
Astuti Masdar	Lecturer	STT Payakumbuh	Sumatera Barat	University	Structural
Eka Juliatad	Lecturer	Universitas Negeri Padang	Padang	University	Structural
T.Ophiyandri	Lecturer	Universitas Andalas	Padang	University	Civil
Bayu Martanto Adji	Lecturer	Universitas Andalas	Padang	University	Structural
Jati Sunaryati, Ph.D	Lecturer	Universitas Andalas	Padang	University	Structural
Rina Yuliet,MT	Lecturer	Universitas Andalas	Padang	University	Geotech
Elsa Eka Putri	Lecturer	Universitas Andalas	Padang	University	Civil
Masrilyanti, Ph.D	Lecturer	Universitas Andalas	Padang	University	Structural
Zaidir	Lecturer	Universitas Andalas	Padang	University	Structural
Oscar Fitrah Nur	Lecturer	Universitas Andalas	Padang	University	
Redi Yusmal, ST, MT	Lecturer	Universitas Putra Indonesia-YPTK	Padang	University	
H. Jefri Bachtiar, ST	Human Settlements Division	Public Works Agency	Matararam	Local Government	Structural
Firjoni Aprianto, ST	Human Settlements Division	Public Works Agency	Bengkulu Kota	Local Government	Structural
Hadi Porwanto, ST		Spatial Planning and Development Agency	Palu	Local Government	Architecture
Faiz, ST, MT.		Spatial Planning and Development Agency	Palu	Local Government	Civil
Fitrawaty,ST		Public Works Agency	Palu	Local Government	Other
Nurmainah		Public Works Agency	Palu	Local Government	Other
Donny Eka Putra, ST	Staff	Public Works Agency	Sumatera Barat	Local Government	Structural
Ir. Alex Rizal		Public Works Agency	Sumatera Barat	Local Government	

Name	Position	Institution/organisation	Province/District	Sector	Expertise
Cynthia Utami Putri, ST	Staff	Public Works Agency	Sumatera Barat	Local Government	
Rudi Anwar, ST	Section Chief	Public Works Agency	Pesisir Selatan	Local Government	Other
Mulyandri, ST	Section Chief	Public Works Agency	Pesisir Selatan	Local Government	Civil
Zulbakri, A.Md.	Staff	Public Works Agency	Pesisir Selatan	Local Government	Quantity
Dony Fitriyandi, ST, MT	Directorate General of Human Settlements	Ministry of Public Works		National Government	
Risnandi		PPK Sarana dan Prasarana Gedung Kantor dan Peralatan Lainnya		National Government	Civil
Ahsin Pramugani, ST		PPK Infrastruktur Tanggap Darurat / Kebutuhan Mendesak, SekDirjen Cipta Karya, Kemen PUPERA		National Government	
Guswenni, S.Sos.,MM	Division Head	BPBD-PK	Padang	Government	Other
Rita Sumarni, S.Sos., MMKes	Section Chief	BPBD-PK	Padang	Government	Health
Endri, ST, MT		Dishub	Padang	Local Government	Civil
Edral Pratama, ST	Staff	Bappeda	Padang	Government	Geotech
Ir. H. Zulfan Zairin	Chairman	National Association Indonesian Consultants (INKINDO)		Private Sector	
Ir. Kurniawan Destika	Vice chairman	National Association Indonesian Consultants (INKINDO)		Private Sector	Geotech
Ir. Trinov Ramdhani		National Association Indonesian Consultants (INKINDO)		Private Sector	
Maya Iskandar	Associate	Beca	Jakarta	Private Sector	Structural

Those participants funded by STIRRRD are given in yellow

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APPENDIX 3: TRAINING EVALUATION QUESTIONNAIRE



**Base Isolation Workshop, Padang, 9 – 13 February 2015
Post-Workshop Questionnaire**

Name	
Job Title	
Organisation	
Years in Position	<1, 1-3, 3-5, >5 (circle one)
Location (where from)	
Male / Female	
Expertise (please tick <input checkbox"="" checked="" type="checkbox>)</td> <td> <input type="/> Structural Engineer <input type="checkbox"/> Other Engineer.....(please state expertise) <input type="checkbox"/> Other profession.....(please state expertise)	

Instructions: Place a **v or circle** in the box to indicate your answer

Workshop Expectations

Q1. How well did the workshop meet your expectations in the knowledge or information areas/topics that you thought were important? (Please **v or circle** the score that you think is most appropriate)

1	2	3	4	5	6	7	8	9	10
Not Much			As expected				Very Well		

Lessons Learnt

Q2a. What were the major learnings you gained from this workshop?

- 1.
- 2.
- 3.
- 4.

Q2b. How much will these lessons help you with your work? (Please **v or circle** the score that you think is most appropriate)

Don't Know	1	2	3	4	5	6	7	8	9	10
	Not much			Some help				Very helpful		

Workshop Content

Q3a. How appropriate was the workshop content for you? (Please **v or circle** the score that you think is most appropriate)

1	2	3	4	5	6	7	8	9	10
Not Very			OK				Very		

Q3b. What Topics would you like to have covered in more detail?



Presenters

Q4. How would you rate the presenters in terms of their presentation style and familiarisation with the subject matter *(Please ✓ the score that you think is most appropriate)*

	1	2	3	4	5	6	7	8	9	10
David Whittaker										
Georgia Whitla										
Prof Iman Satyarno										
Dr Faisal Fathani										
Dr Febrin Ismail										
Dr Abdul Hakam										
	Not good			Good				Excellent		

Discussion

Q5. How good was the opportunity to discuss key topics and issues and obtain answers to your questions? *(Please ✓ or circle the score that you think is most appropriate)*

1	2	3	4	5	6	7	8	9	10
Not Good			Good				Excellent		

Workshop Logistics

Q6. How good were the workshop logistics? *(Please ✓ the score that you think is most appropriate)*

	1	2	3	4	5	6	7	8	9	10
Venue										
Equipment										
Course material										
Translation										
Catering										
	Not good			Good				Excellent		

Field Visit

Q7. How useful was the field visit to base isolated buildings? *(Please ✓ or circle the score that you think is most appropriate)*

1	2	3	4	5	6	7	8	9	10
Not Good			Good				Excellent		

Overall satisfaction of workshop

Q8. Overall how would you rate the quality and usefulness of this workshop? *(Please ✓ or circle the score that you think is most appropriate)*

1	2	3	4	5	6	7	8	9	10
Not good			Good				Excellent		

Thank you for completing this questionnaire.

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APPENDIX 4: TRAINING EVALUATION ANALYSIS



Figure A1 Workshop expectations.

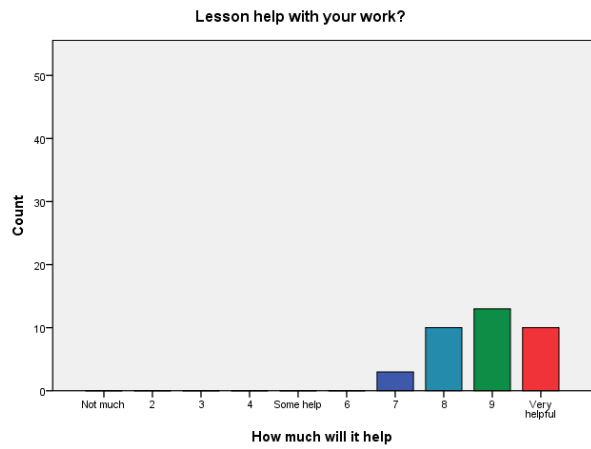


Figure A2 Help with their work.

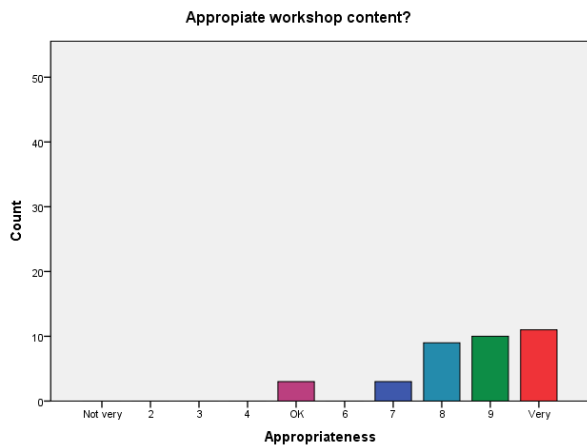


Figure A3 Appropriateness of content.

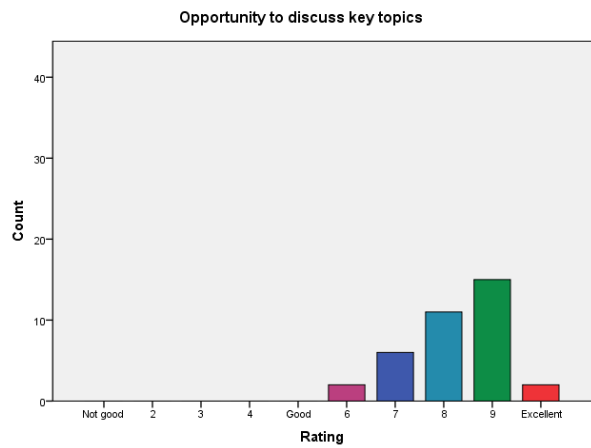


Figure A4 Discussion time.

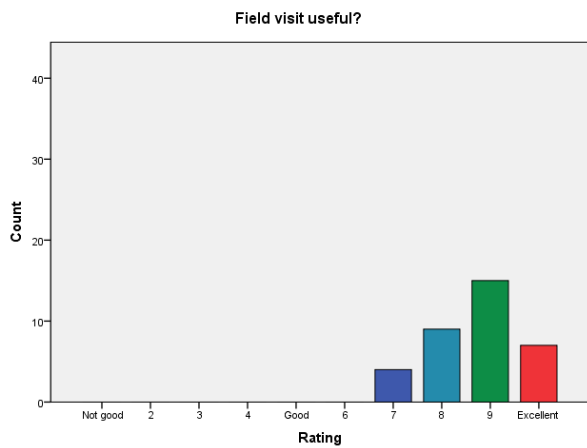
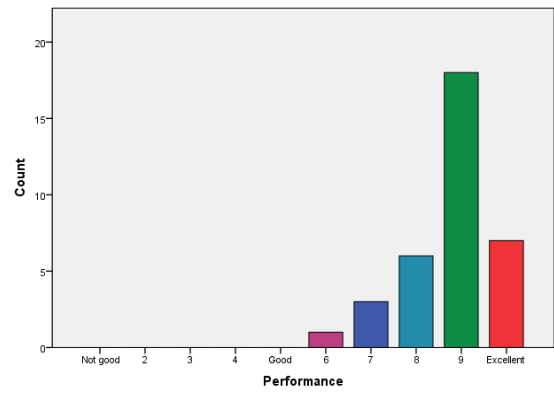
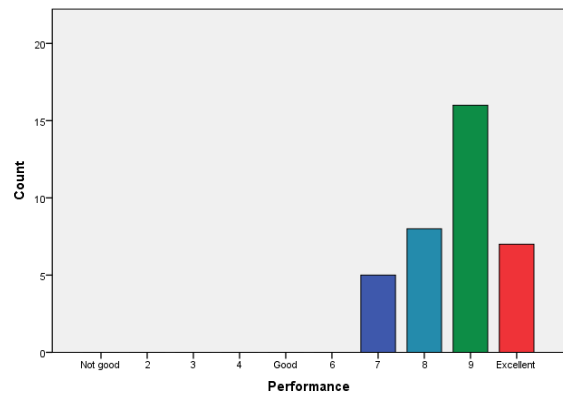


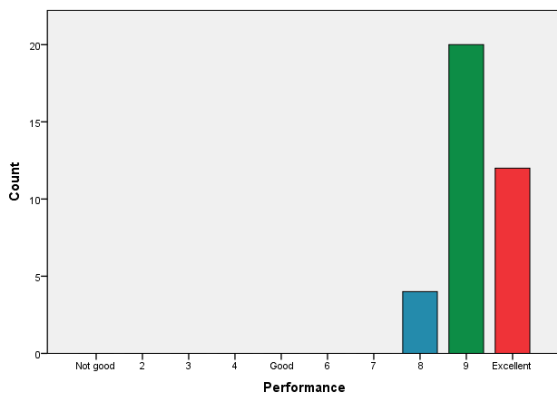
Figure A5 Usefulness of Field Visit.



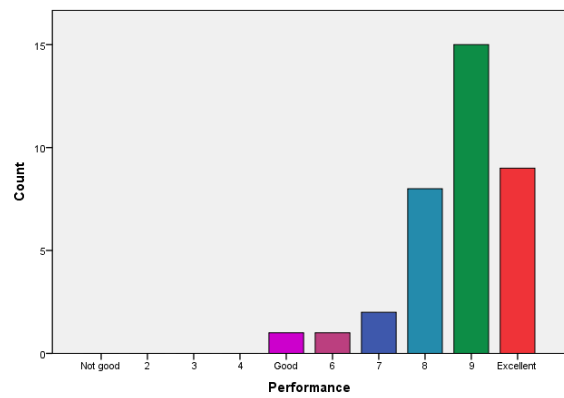
Dr David Whittaker



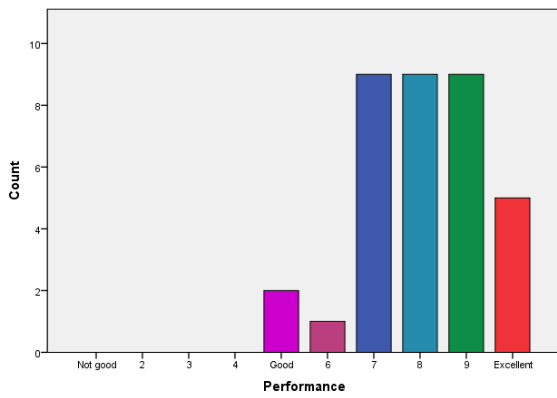
Georgia Whitla



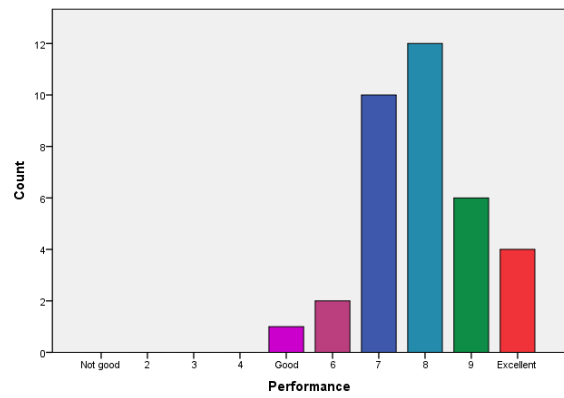
Prof. Iman Satyarno



Dr Faisal Fathani

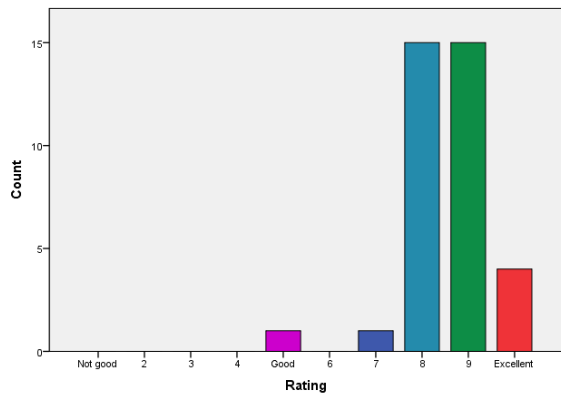


Dr Febrin Ismail

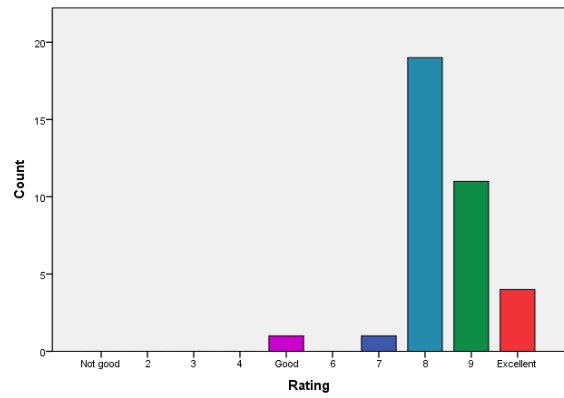


Dr Abdul Hakam

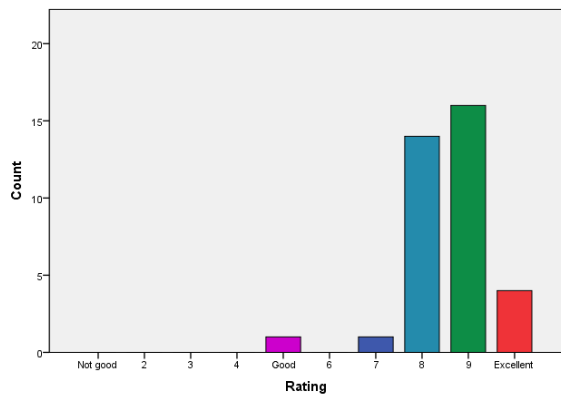
Figure A6 Participant feedback on presenters.



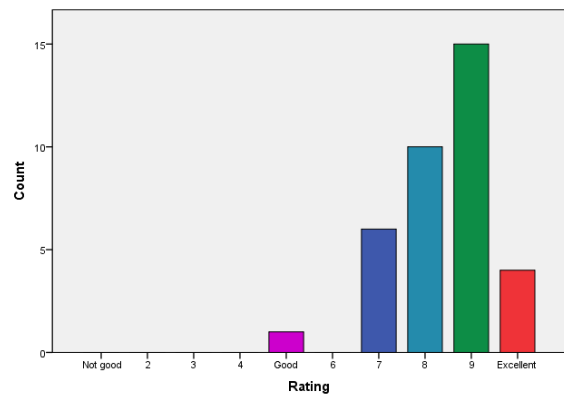
Venue



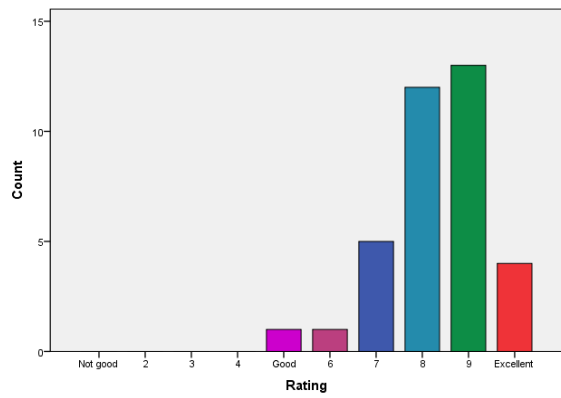
Equipment



Course material



Translation



Catering

Figure A7 Questionnaire Feedback on the training venue.

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APPENDIX 5: COURSE PRESENTATIONS

Presentations are on the enclosed disc.