

DAFTAR PUSTAKA

- Abrate, Silvio, et al. 2013. *Step-Index PMMA Fibers and Their Applications*. Licensee InTech
- Cyriil, M. Haris. (2009). *Harris' Shock and Vibrations Handbooks (2th ed.)*. New York: The McGraw-Hill Companies, Inc.
- Dutton, J. R. Harry. 1998. *Understanding Optical Communications*. U.S: International Business Machines Corp.
- Elliott, Barry., Gilmore, Mike. 2002. *Fiber Optic Cabling*. Oxford.
- FOA (The Fiber Optic Association, Inc.). 2004. The Fiber Optic Association – Tech Topics Plastic Optical Fiber (POF). <http://www.thefoa.org/tech/pof.htm>. (diakses pada 10 April 2015).
- Genexis. 2012. *Technical Report World's First Service Trial of ITU-T G.hn over Plastic Optical Fibre (POF)*. Netherlands.
- Ghandchi, M Tehrani. 2013. *Energy Harvesting From Train Vibration*. Portugal
- Goure J.P, Verrier, I. 2002. *Optical Fibre Devices*. U.K: Institute of Physics Publishing.
- Hui, Rongqing et al. 2009. *Fiber Optics Measurement Techniques*. USA: Elsevier Inc.
- ITU. 2008. G.984.4 : *Gigabit-capable passive optical networks (G-PON)*. <http://www.itu.int/rec/T-REC-G.984.4-200802-I/en> (diakses pada 18 Mei 2015).
- ITU-T. 2009. *Handbook of Optical Fibres, Cables, and Systems*. International Telecommunication Union Telecommunication Standardization Sector.
- Keiser, Gerd E. 1991. *Optical Fiber Communications*. USA: The McGraw-Hill Companies.
- Keiser, Gerd E. 2004. *Optical Communication Essentials*. USA: The Mc-Graw Hill Companies.
- K. Koughia. 2006. *Optical Properties of Condensed Matter and Applications*. John Wiley & Sons, Ltd
- Massa, Nick. 2000. *Fiber Optic Telecommunications*. University of Connecticut.
- Nistanto, K. Reska. *Inilah Peta "Urat Nadi" Internet Dunia 2014*. Kompas. com /Tekno. (diakses pada 26 februari 2015).
- Perdana, A et al. 2012. *Analisis Dispersion Power Penalty Pada Impedansi Teknologi Gigabit Passive Optical Network (GPON)*. Institut Teknologi Telkom. Bandung

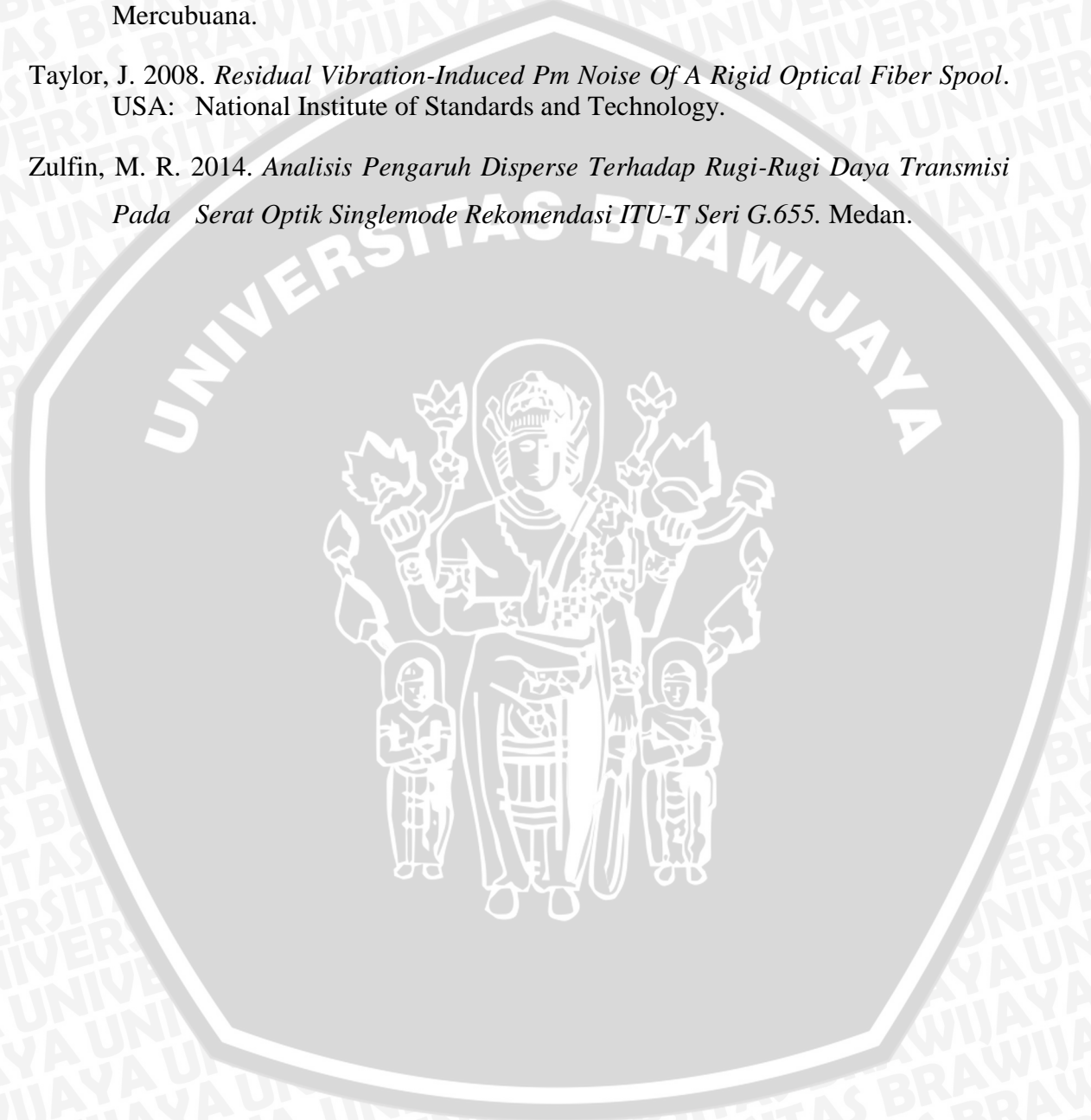
Ria Indhryani. 2013. *Jaringan Fiber Optik, Telkom Genjot Penetrasi Fiber To The Home*. <http://industri.bisnis.com>. (diakses pada 15 Mei 2015).

Senior, M. John. 2009. *Optical Fiber Communications Principles and Practice (Third Edition)*. London: Pearson Education Limited.

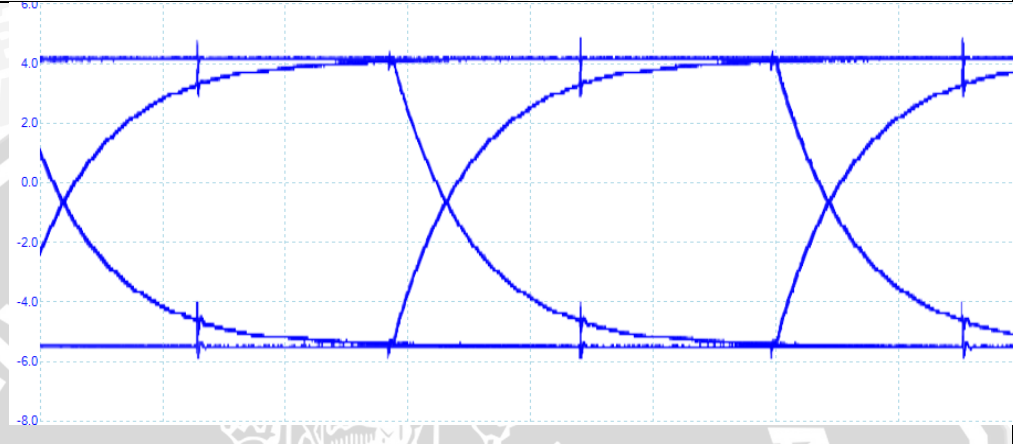
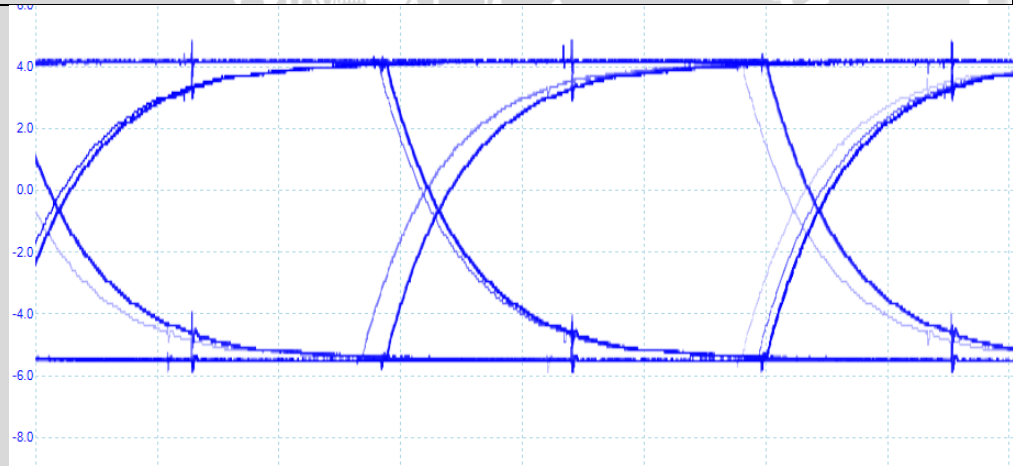
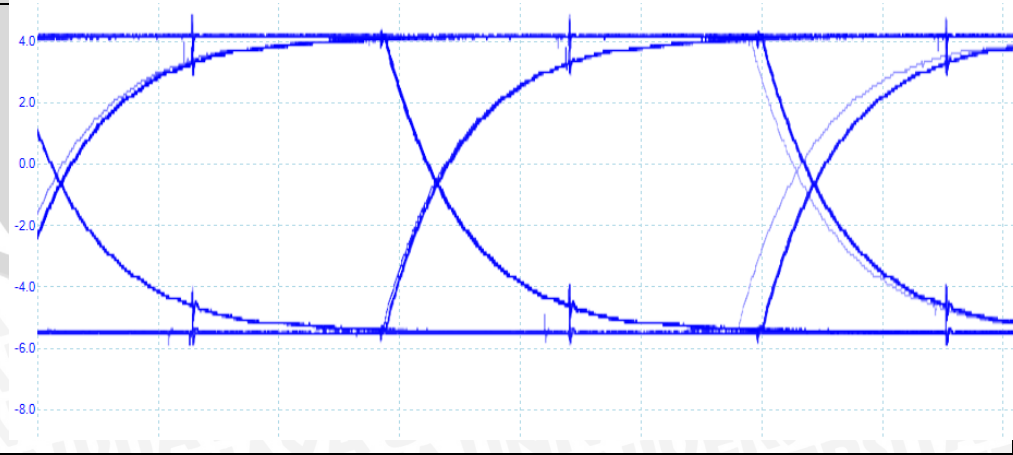
Syauki, Ahmad Yanuar. 2008. *Sistem Komunikasi Serat Optik*. Jakarta: Universitas Mercubuana.

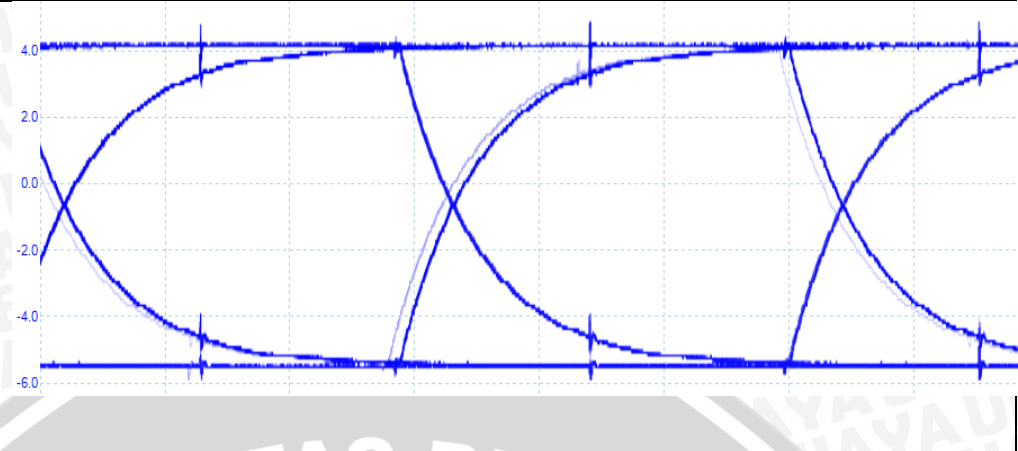
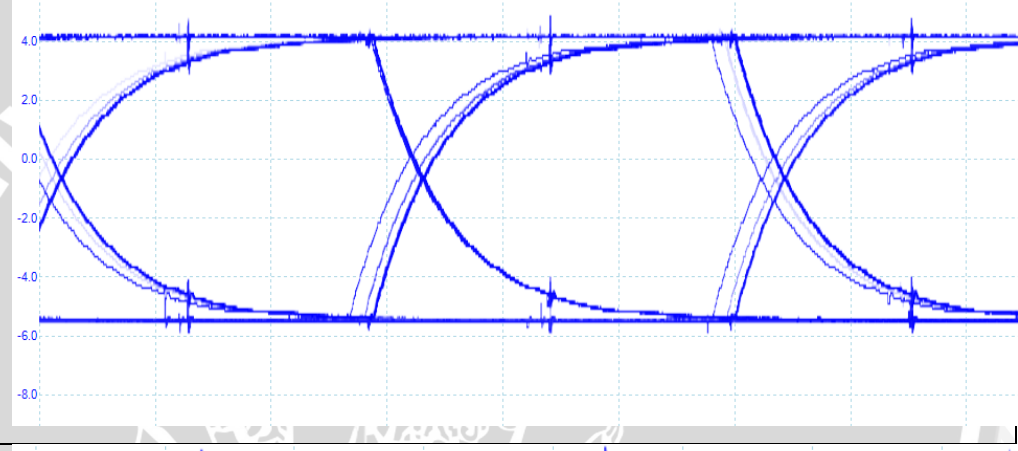
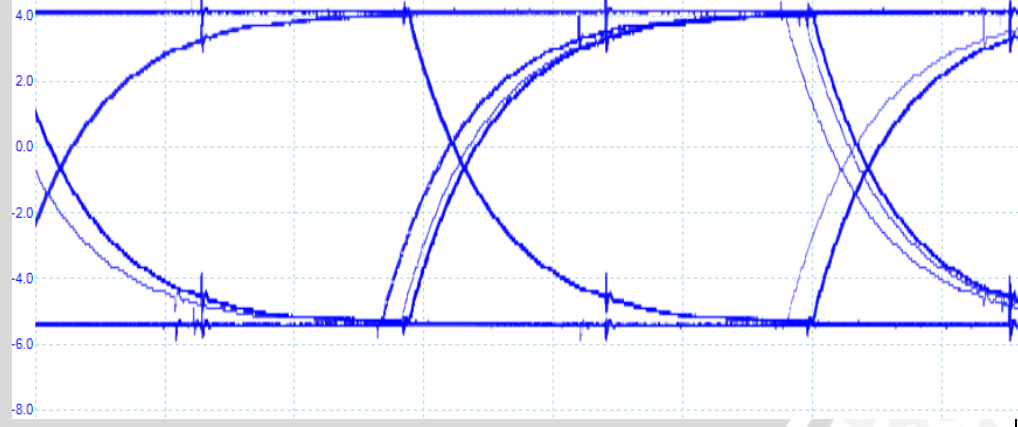
Taylor, J. 2008. *Residual Vibration-Induced Pm Noise Of A Rigid Optical Fiber Spool*. USA: National Institute of Standards and Technology.

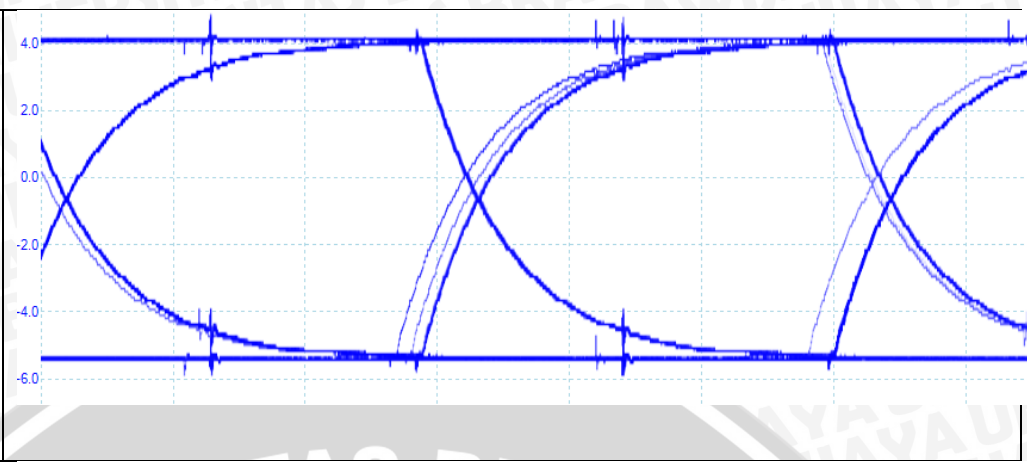
Zulfin, M. R. 2014. *Analisis Pengaruh Disperse Terhadap Rugi-Rugi Daya Transmisi Pada Serat Optik Singlemode Rekomendasi ITU-T Seri G.655*. Medan.



Lampiran 1. Pengukuran Pada Eye Diagram

No	Hasil perhitungan	Gambar Eye Pattern
1	<p> $f = 0 \text{ Hz}$ $v1 = 3.72$ $v2 = 4.83$ $U_n = 1.11$ $U_s = 10.83$ $\Delta T \text{ (ms)} = 0.63$ $T_b \text{ (\mu s)} = 31.25$ noise margin = 77.02% SNR = 19.79 dB timing jitter = 2.02% Bit Rate = 32 kbps BER = 3.125×10^{-3} </p>	 <p>The eye diagram for f = 0 Hz shows a clear signal with a noise margin of 77.02% and a BER of 3.125 x 10^-3. The signal is centered around 0V with a peak-to-peak amplitude of approximately 10.83V. The bit rate is 32 kbps and the timing jitter is 2.02%.</p>
2	<p> $f = 5 \text{ Hz}$ $v1 = 3.73$ $v2 = 4.83$ $U_n = 1.14$ $U_s = 10.82$ $\Delta T \text{ (ms)} = 0.63$ $T_b \text{ (\mu s)} = 31.27$ noise margin = 76.59% SNR = 19.55 dB timing jitter = 2.01% Bit Rate = 31.9795 kbps BER = 3.127×10^{-3} </p>	 <p>The eye diagram for f = 5 Hz shows a signal with a noise margin of 76.59% and a BER of 3.127 x 10^-3. The signal is centered around 0V with a peak-to-peak amplitude of approximately 10.82V. The bit rate is 31.9795 kbps and the timing jitter is 2.01%.</p>
3	<p> $f = 10 \text{ Hz}$ $v1 = 3.67$ $v2 = 4.87$ $U_n = 1.11$ $U_s = 10.8$ $\Delta T \text{ (ms)} = 0.65$ $T_b \text{ (\mu s)} = 31.27$ noise margin = 75.36% SNR = 19.08 dB timing jitter = 2.08% Bit Rate = 31.9795 kbps BER = 3.127×10^{-3} </p>	 <p>The eye diagram for f = 10 Hz shows a signal with a noise margin of 75.36% and a BER of 3.127 x 10^-3. The signal is centered around 0V with a peak-to-peak amplitude of approximately 10.8V. The bit rate is 31.9795 kbps and the timing jitter is 2.08%.</p>

4	<p> $f = 15 \text{ Hz}$ $v1 = 3.67$ $v2 = 4.95$ $U_n = 1.28$ $U_s = 10.89$ $\Delta T \text{ (ms)} = 0.68$ $T_b \text{ (\mu s)} = 31.29$ noise margin = 74.14% SNR = 18.60 dB timing jitter = 2.17% Bit Rate = 31.9591 kbps BER = 3.129×10^{-3} </p>	
5	<p> $f = 20 \text{ Hz}$ $v1 = 3.7$ $v2 = 4.999$ $U_n = 1.29$ $U_s = 10.9$ $\Delta T \text{ (ms)} = 1.53$ $T_b \text{ (\mu s)} = 31.31$ noise margin = 74.01% SNR = 18.54 dB timing jitter = 4.89 % Bit Rate = 31.9387 kbps BER = 3.131×10^{-3} </p>	
6	<p> $f = 25 \text{ Hz}$ $v1 = 3.64$ $v2 = 4.95$ $U_n = 1.31$ $U_s = 10.88$ $\Delta T \text{ (ms)} = 1.56$ $T_b \text{ (\mu s)} = 31.31$ noise margin = 74.14% SNR = 18.39 dB timing jitter = 4.98 % Bit Rate = 31.9387 kbps BER = 3.131×10^{-3} </p>	

7	<p> $f = 30 \text{ Hz}$ $v1 = 3.59$ $v2 = 4.91$ $U_n = 1.32$ $U_s = 10.83$ $\Delta T \text{ (ms)} = 1.57$ $T_b \text{ (\mu s)} = 31.4$ noise margin = 73.12% SNR = 18.28 dB timing jitter = 5.00% Bit Rate = 31.8471 kbps BER = 3.140×10^{-3} </p>	
8	<p> $f = 35 \text{ Hz}$ $v1 = 3.57$ $v2 = 4.918$ $U_n = 1.348$ $U_s = 10.74$ $\Delta T \text{ (ms)} = 1.58$ $T_b \text{ (\mu s)} = 31.45$ noise margin = 72.59 % SNR = 18.03 dB timing jitter = 5.02 % Bit Rate = 31.7965 kbps BER = 3.145×10^{-3} </p>	