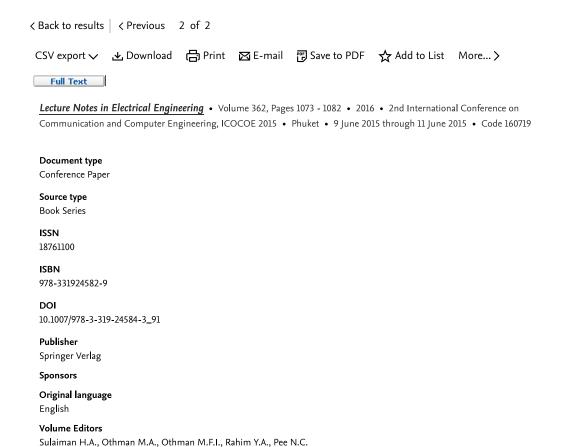


Scopus

Q



Comparison of conversion methods from 60- to 1-min integration time for rainfall in Malaysia

Sobli, Nuurul Hudaa Mohd 🖂 ; Ismail, Ahmad Fadzil 🖂 ; Asnawi, Ani Liza 🔀 ; Nordin, Mimi Aminah Wan 🖂 ; Khairolanuar, Muhamad Haziq 🖂 Save all to author list

^a Department of Electrical and Computer Engineering, Kulliyyah of Engineering, International Islamic University Malaysia (IIUM), Jln. Gombak, Selangor, 53000, Malaysia



Full text options >

Abstract

View less ^

Indexed keywords

SciVal Topics

Metrics

Cited by 0 documents

Inform me when this document is cited in Scopus:

Set citation alert >

Related documents

Assessment of statistical and empirical conversion methods of integration time for rainfall rate in Malaysia

Sobli, N.H.M., Ismail, A.F., Asnawi, A.L. (2016) Lecture Notes in Electrical Engineering

1-Min Rain rate statistics predictions from 1-hour rain rate statistics measurements

Capsoni, C., Luini, L. (2008) IEEE Transactions on Antennas and Propagation

Assessment of Conversion Methods to Acquire 1-Minute Integration time Rain Intensity Statistic

Khairolanuar, M.H., Ismail, A.F., Jusoh, A.Z. (2015) Lecture Notes in Electrical Engineering

View all related documents based on references

Find more related documents in Scopus based on:

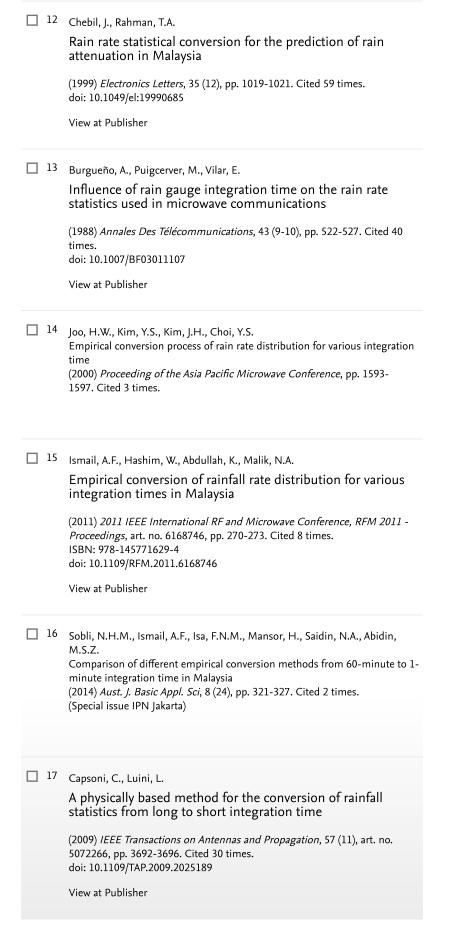
Authors > Keywords >

Abstract

This paper presents some preliminary assessments of the precipitation rate conversion methods from 60-min to 1-min integration time. The conversion methods used in this study are Moupfouma and Khairolanuar et al., and ITU-R P.837. Rainfall rate data of twelve-months duration from January to December 2009 were acquired from Malaysia Meteorological Department (MMD) and exploited for the evaluation. The rainfall data were collected from MMD rain gauge station located at Kuala Lumpur International Airport (KLIA). The investigations comprise of producing annual rainfall rate cumulative distributions of the measured data. The equivalent 1-min annual rainfall rate cumulative distributions using conversion methods as mentioned above. Predicted values of annual 1-min cumulative distribution established by ITU-R P.837 are used as references. The equivalent 1-min equivalent cumulative distribution obtained from Moupfouma's and Khairolanuar et al.'s methods are then compared with that of ITU-R P.837 to validate the applicability and efficiency of each method. According to the results, it can be observed that Khairolanuar et al.'s method capable of generating equivalent 1-min rainfall values with smallest percentage difference as compared to ITU-R P.837 at 0.01% of time exceedance. © Springer International Publishing Switzerland 2016.

5.01% of time exceedance	e. Springer international rubishing Switzerland 2010.
ndexed keywords	~
SciVal Topics ①	~
Metrics	~
Funding details	~
	References (19) View in search results format >
	□ All CSV export ✓ □ Print ☑ E-mail ☑ Save to PDF Create bibliography □ 1 Brand, E. A comparative study of techniques for measuring rainfall rate and accumulation (2000) Proceedings AP2000 Millennium Conference on Antennas and Propagation. Cited 2 times.
	☐ 2 (1994) Definition of terms relating to propagation in non-ionised media
	3 (2001) Characteristics of precipitation for propagation modeling
	Segal, B. The influence of rain gauge integration time on measured rainfall-intensity distribution functions (1986) <i>J. Atmos. Oceanic Technol</i> , 3, pp. 662-671. Cited 63 times.

5	Segal, B., Allnutt, J.E. On the use of long sampling-time rainfall observations for predicting high-probability attenuation on earth-space links (1991) <i>IEE Conference Publication</i> , (333 pt 2), pp. 754-757. Cited 7 times. ISBN: 0863411509
6	Dutton, E.J., Dougherty, H.T., Martin, R.F. (1974) <i>Prediction of European Rainfall and Link Performance Coefficients at 8 to 30 Ghz</i> . Cited 20 times. Institute for Telecommunications Science. U.S. Department Commerce, Washington DC
7	Rice, P.L., Holmberg, N.R. Cumulative Time Statistics of Surface-Point Rainfall Rates (1973) IEEE Transactions on Communications, 21 (10), pp. 1131-1136. Cited 138 times. doi: 10.1109/TCOM.1973.1091546 View at Publisher
8	Crane, R.K. Prediction of Attenuation by Rain (1980) IEEE Transactions on Communications, 28 (9), pp. 1717-1733. Cited 387 times. doi: 10.1109/TCOM.1980.1094844 View at Publisher
9	(2012) Characteristics of precipitation for propagation modelling
□ 10	Moupfouma, F., Martin, L. Modelling of the rainfall rate cumulative distribution for the design of satellite and terrestrial communication systems (1995) International Journal of Satellite Communications, 13 (2), pp. 105-115. Cited 95 times. doi: 10.1002/sat.4600130203 View at Publisher
<u> </u>	Karasawa, Yoshio, Matsudo, Takashi One-minute rain rate distributions in Japan derived from AMeDAS one-hour rain rate data (1991) IEEE Transactions on Geoscience and Remote Sensing, 29 (6), pp. 890-898. Cited 24 times. doi: 10.1109/36.101367 View at Publisher



	□ 18	Khairolanuar, M.H., Ismail, A.F., Jusoh, A.Z., Sobli, N.H.M., Malek, N.F.A., Zabidi, S.A. New empirical conversion technique for 1-minute integration time of precipitation intensity in Malaysia (2014) <i>Aust. J. Basic Appl. Sci</i> , 8 (24), pp. 290-295. Cited 5 times. (Special issue IPN Jakarta)
	<u> </u>	http://www.met.gov.my/index.php? option=com_content&task=view&id=92&Itemid=301&Iimit=1&Iimitstart=2&Ia ng=English
	Engineer Malaysia	N.H.M.; Department of Electrical and Computer Engineering, Kulliyyah of ing, International Islamic University Malaysia (IIUM), Jln. Gombak, Selangor, email:hudaa@iium.edu.my ight 2016 Elsevier B.V., All rights reserved.
Bad to an Italian Basis	2 - 4 2	Top of some

∠ Back to results | ∠ Previous 2 of 2

∧ Top of page

About Scopus

What is Scopus

Content coverage

Scopus blog

Scopus API

Privacy matters

Language

日本語版を表示する

查看简体中文版本

查看繁體中文版本

Просмотр версии на русском языке

Customer Service

Help

Tutorials

Contact us

ELSEVIER

Terms and conditions *¬* Privacy policy *¬*

Copyright © Elsevier B.V. \neg . All rights reserved. Scopus® is a registered trademark of Elsevier B.V. We use cookies to help provide and enhance our service and tailor content. By continuing, you agree to the use of cookies \neg .

RELX