



SDI Review Form 1.6

Journal Name:	Journal of Engineering Research and Reports
Manuscript Number:	Ms_JERR_43941
Title of the Manuscript:	Excel Approach for Infiltration Capacity for Different Lands
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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PART 1: Review Comments

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<u>Compulsory</u> REVISION comments	1. Soil moisture content can affect infiltration rate greatly. This was only briefly mentioned in line 34 and 37 but not considered by your methodology. Please add discussions regarding how soil moisture (before applying water) can affect infiltration rate, and include the effect of antecedent soil moisture in the calculations. 2. In introduction, please add discussion about the shortcoming of current infiltration estimation methodology, which highlights the importance of your EXCEL methodology. 3. Infiltration rates can change greatly from one point to another, even though they are in the same plot with the same soil texture. I would like to see validation results which uses the established curves on infiltration rates of new locations. If no validation data can be collected, please consider breaking your data points into two groups: calibration and validation. This manuscript needs major revisions to show its functionality, but can be published if all the comments are addressed.	1- Done – Lines 101 - 107 2- Done – Lines 73 - 79 3- No validation data can be collected. It is stated as a recommendation.
<u>Minor</u> REVISION comments	1. Lines 9: “software” should be spelled as a single word. I saw this spelling more than once in the manuscript. Please check the whole document. 2. Lines 33-34: For the effect of land cover on infiltration, please consider citing this paper: Wang, X.; Amonett, C.; Williams. J.R.; Wilcox, B.P.; Fox, W.E.; Tu, M.-C. 2014. Rangeland watershed study using APEX. J. Soil Water Conserv, 69(3): 197-212. doi:10.2489/jswc.69.3.197 3. Line 34: Vegetation and/or better land management can also prevent soil from drying out quickly, which is important in agriculture and irrigation practices. Please consider citing this paper to illustrate this point:	1- Done – Lines 9 & 84 2- Done – Lines 66 - 69 3- Done – Lines 69 - 71 4- Done – Line 42



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	Tu, M.-C.; Smith, P. 2018. Modelling pollutant buildup and washoff parameters for SWMM based on land use in a semiarid urban watershed. Water Air Soil Poll. 229: 121. doi:10.1007/s11270-018-3777-2 4. Line 42: What does “starts at a constant rate” mean? If it is constant, it literally won’t change. Please use a more proper word. 5. I suggest relating soil texture and existence of vegetation to infiltration rate to provide some kind of prediction power to infiltration rate of land that infiltration tests have not been performed on before. It will significantly increase the value of this paper. In multiple regression with many parameters, collinearity should be examined by VIF, and this paper can help: Tu, M.-C.; Smith, P.; Filippi, A.M. 2018. Hybrid forward-selection method-based water-quality estimation via combining Landsat TM, ETM+, and OLI/TIRS images and ancillary environmental data. PLoS ONE. 13(7): e0201255. doi: 10.1371/journal.pone.0201255	5- Data and time are limited. May be done later.
Optional/General comments		

PART 2:

	Reviewer’s comment	Author’s comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Are there ethical issues in this manuscript?	<u>(If yes. Kindly please write down the ethical issues here in details)</u>	