

<p style="text-align: center;">A. Abrahamsen (Referee) asab@dtu.dk Received and published: 16 February 2021</p>	<p style="text-align: center;">Edited by Montri Luengchavanon and the team</p>
Comments	
<p>1) To split the results and the discussion into two different sections in the paper. I think the discussion will be more clear if all results are presented first and then they are discussed in a separate section.</p>	<p>- Our article have already edited that split the results and discussion</p>
<p>2) The authors have to explain the experimental procedure more clearly in terms of what the rotation speed is during the presented test results. This is especially the case for figure 3 and figure 4.</p>	<ul style="list-style-type: none"> - All the rotational speed of 650 rpm, the maximum power generated around 300 W, but it is depend on the skewing magnet and coils technique. - This article explained more the relationship between Figure 4 (b) [Orinal Figure 3(b)] and Figure 5 [Original Figure 4] by “Fig 5 shows comparison values between the starting torque that collected peaks value from Figure 4 (b) and power when changing the skewing angle magnet-coils in the PMSG generator.”
<p>3) For vertical axis wind turbines there is often a linked relation between the turbine shaft power and both the incoming wind speed as well as the turbine rotation speed. Thus there is often a wind speed vs. rotation speed curve giving the optimal tip speed ratio for a specific turbine rotor.</p> <p>3.1 This relation is not clear from figure 7 and 8. Thus it seems that the rotations speed reported in figure 8 are quite high for the turbine rotor. It was not possible to find figure 7 in the reference stated as Suppachai et. al. 2019 and it was therefore hard to check. Please clarify if Suppachai et. al. 2019 is correct.</p> <p>3.2 It will be appropriate to provide a description of what the turbine is going to do when it is started at a wind speed of $v = 2$ m/s.</p> <p>3.3 Do you plan to spin up the rotation speed without the electrical load connected and then increase the electrical load at rated rotation speed?</p> <p>3.4 Or do you plan to connect a constant electrical load and spin up the turbine with the load connected?</p> <p>3.5 It will be good if this is discussed in relation to the start-up torque measurements presented in figure 3 and 4.</p>	<p>3.1 Due to the results from Suppachai et. al. 2019 used a spring torque and the wind tunnel is limited. So, this article was installed standard torque meter with high speed wind tunnel (0-10 m/s) and Savonius and H-Darrieus wind turbine, this article was added Figure.3. For explained the relationship between figure 8 and 9 (original Figure 7 and 8) that Figure 8 shows the related between rotation speed, torque and wind speed. Figure 9 is related to Figure 8 by rotation speed which used skewing angle magnet-coil at 15-0 degree, it can be really reduced starting torque and cut-in at 2.1 m/s.</p> <p>3.2 The cut-in of this vertical wind turbine cannot start turning at 2.0 m/s wind speed due to the systems combined force of $T_{starting}$, friction and weight of accessory. Hence, the real operation of this vertical axis wind turbine system used (Savonius and H-Daarieus) and skewing magnet-coil at 15-0 degree that can be cut-in at 2.1 m/s as shown in Figure 8 [Original Figure 7].</p> <p>(3.3 and 3.4) Yes, this experiment was firstly spin up the rotation speed without load and then increased the electrical load at many rated rotation speed.</p> <p>3.5 Figure 4(a) [original Figure 3 (a)] represents the starting torque are without electrical load. Figure 4(b) [original Figure 3 (b)] represented the starting torque are connected the electrical load. Figure 5 [Original Figure 4] is related Figure 4(b) [original Figure 3 (b)] which Figure 5 was compared the maximum peaks of starting- up torque at all the skewing magnet – coils that looking for high power and low start-up torque.</p>