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## SISTEM MONITOR SUHU DAN KELEMBABAN BERBASIS CLOUD PADA LAHAN GAMBUT

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### ABSTRACT

The Research and Development Center for The Soil and Agricultural Land Resources Office estimates that Indonesia's peatland area is around 14.9 million H. In the dry season, peatlands experience dryness, so they burn easily. More than 99% of the causes of forest and peatland fires are human-made, either deliberately burning or neglecting to use fire. IoT (Internet of Things) technology is used to connect all devices to the internet and enable communication of each other, one reason for which is that digital data stored on cloud storage, then display the data on a website. The website was designed to monitor the peat's condition by considering the peat's air temperature, peat soil temperature, peat soil moisture, and humidity around the peatlands. IoT retrieves and sends data to the cloud, then websites retrieve and display data from the cloud in diagram and table format for easy reading of monitors. Website monitoring systems utilize several components, including domains as addresses, web hosting as web data storage, and the CMS framework CodeIgniter is used as the basis of the application. Sending data from IoT to web hosting requires cloud storage. Without this, it is necessary to transfer data from the IoT to the website manually. The monitor system can read temperature and humidity sensor data, store it in the cloud, then display it on a website so that the data monitoring process runs well.

### KEYWORDS

cloud, codeigniter, peatland, monitor, website

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### REFERENCES

- EllisLab. (2019). CodeIgniter User Guide. Retrieved 21 October 2020, from <https://www.codeigniter.com/userguide3/index.html>
- Gambut, P. (2018). Luas dan sebaran lahan gambut di Indonesia. Retrieved 20 October 2020, from <https://www.pantaugambut.id/pelajari/apa-itu-gambut/luas-dan-sebaran-lahan-gambut-di-indonesia>
- Haryono, A. F., Priyambadha, B., & Pradana, F. (2018). Pengujian Website Bursa Kerja Khusus SMK Negeri 1 Surabaya Menggunakan Web Based Application Quality Model. *Jurnal Pengembangan Teknologi Informasi Dan Ilmu Komputer*, 2(7), 2603–2611.
- Kamil, muh ichsan, Ardianto, R., & Wibawa, ig prasetya dwi. (2019). Prototipe Sistem Monitoring Dan Kontrol Lampu Rumah Berbasis Iot (Internet of Things). *E- Proceeding of Engineering*, 6(2), 2974.
- Kelen, L. (2018). Implementasi Model-View-Controller (MVC) Pada Ujian Online Melalui Penerapan Framework Codeigniter. *Jurnal Pendidikan Teknologi Informasi (JUKANTI)*, 1(1), 10–16. Retrieved from <https://doi.org/10.37792/jukanti.v1i1.5>
- Leven, T. S., Rismawan, T., & Nirmala, I. (2017). Sistem Monitoring Dan Peringatan Dini Kebakaran Hutan Dan Lahan Gambut Berbasis Arduino Dengan Antarmuka Website Dan Short Message Service (SMS). *OSMIS*, 05(05).
- Nasution, H. R., Fahrudin, A. E., & Harnawan, A. A. (2016). Prototipe Sistem Jaringan Sensor Untuk Monitoring Temperatur-Kelembaban Permukaan Dan Bawah Lahan Gambut Berbasis Database. *Jurnal Fisika FLUX*, 13(1), 70–78. Retrieved from <http://ppjp.unlam.ac.id/journal/index.php/f/article/view/1918>
- Nugroho, B. D. A., Utami, S. N. H., & Purwanto, B. H. (2019). Penerapan Sistem Monitoring Lahan dan Analisa Neraca Air Klimatik Pertanian di Lahan Gambut. *AgriTECH*, 39(2), 108. Retrieved from <https://doi.org/10.22146/agritech.43507>
- Ontowirjo, F. Y. Q., Poekoel, V. C., Manembu, P. D. K., & Robot, R. F. (2018). Implementasi Internet of Things Pada Sistem Monitoring Suhu dan Kelembaban Pada Ruangan Pengering Berbasis Web. *Jurnal Teknik Elektro Dan Komputer*, 7(3), 331–338. Retrieved from <https://doi.org/10.35793/jtek.7.3.2018.23638>
- Rahadi, A. Al Musadieq, M. Susilo, H. (2014). Analisis dan Desain Sistem Informasi Persediaan Barang Berbasis Komputer (Studi Kasus Pada Toko Arta Boga). *Jurnal Administrasi Bisnis S1 Universitas Brawijaya*, 8(2). Retrieved from <http://administrabisnis.studentjournal.ub.ac.id>
- Rauf, A. (1970). Dampak Kebakaran Lahan Perkebunan Kelapa Sawit Di Lahan Gambut Kabupaten Aceh Barat Daya Terhadap Sifat Tanah Gambut. *Jurnal Pertanian Tropik*, 3(3), 256–266. Retrieved from <https://doi.org/10.32734/jpt.v3i3.2985>
- Rochman, H. A., Primananda, R., & Nurwasito, H. (2017). Sistem Kendali Berbasis Mikrokontroler Menggunakan Protokol MQTT pada Smarthome. *Jurnal Pengembangan Teknologi Informasi Dan Ilmu Komputer*, 1(6), 445–455. Retrieved from <http://j-ptiik.ub.ac.id>
- Usman, R. A., Bambang, H., & Maulana, Y. M. (2016). Analisis Dan Desain Sistem Monitoring Dan Evaluasi Koperasi Pada Dinas Koperasi Kabupaten Sidoarjo. *Jsika*, 5(6), 1–8.
- Wahyunto, Nugroho, K., Ritung, S., & Sulaeman, Y. (2014). Indonesian peatland map: method, certainty, and uses. *Proceeding Lokakarya Kajian Dan Sebaran Gambut Di Indonesia*, (August), 81–96. Retrieved from [http://balittanah.libang.pertanian.go.id/ind/dokumentasi/prosiding/gambut\\_icctf/05\\_Wahyunto\\_Indon\\_peatland\\_map-draft1-20juli2014\\_HN\\_1-EditWt11Agt-tika.pdf](http://balittanah.libang.pertanian.go.id/ind/dokumentasi/prosiding/gambut_icctf/05_Wahyunto_Indon_peatland_map-draft1-20juli2014_HN_1-EditWt11Agt-tika.pdf)

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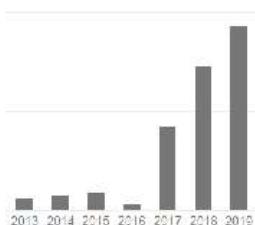
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