

(54) Title of the invention : IOT EMPLOYMENT FOR MONITORING THE RISE OF THE TEMPERATURE OF MASS CONCRETE BLOCK

(51) International classification :C04B002804000, G01K001300000, G01K0007010000, A61L0002280000, E04G0021240000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No :NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

(71)Name of Applicant :
1)Sulaxan Jadhav
Address of Applicant :PhD Scholar, School of Interdisciplinary Studies and Research, DY Patil International University, Akurdi, Pune - 411044
2)Dr. Om Prakash Singh
3)Satyam Dubey
4)Rathina Kumar N
5)Abhishek Awasthi
6)Swaraj Satish Kadam
7)Ravildran Kamath Billady
8)Dr. Brijesh Kumar
9)Nirban Laskar
10)Prof. Dhiresh S Shastri
11)Mr. L. Karthick
Name of Applicant : NA
Address of Applicant : NA
(72)Name of Inventor :
1)Sulaxan Jadhav
Address of Applicant :PhD Scholar, School of Interdisciplinary Studies and Research, DY Patil International University, Akurdi, Pune - 411044
2)Dr. Om Prakash Singh
Address of Applicant :Assistant Professor, Department of Civil Engineering, Jaipur National University, Jaipur-Agra Bypass, Near New RTO Office, Jagatpura, Jaipur, Rajasthan - 302017
3)Satyam Dubey
Address of Applicant :Assistant Professor, Department of Civil engineering, Dr.K.N.Modi Institute of Engineering And Technology, Modinagar, Ghaziabad, Uttar Pradesh - 201204
4)Rathina Kumar N
Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Karpagam College of Engineering, Mylaripalayam Village, Odhakkal Mandapam, Coimbatore - 641032
5)Abhishek Awasthi
Address of Applicant :Assistant Professor, Department of Civil Engineering, Khwaja Moimuddin Chishti University, Lucknow-226013, Uttar Pradesh, India
6)Swaraj Satish Kadam
Address of Applicant :Assistant Professor, Department of Electrical Engineering, Dr. D Y Patil Institute of Technology, Pimpri, Pune - 411018
7)Ravildran Kamath Billady
Address of Applicant :Assistant Professor - II, Department of Mechanical Engineering, Nitte (Deemed to be University), NMMAM Institute of Technology (NMMAMIT), Nitte, India
8)Dr. Brijesh Kumar
Address of Applicant :Associate Professor, Department of Applied Science and Humanities, Dr. K.N. Modi Institute of Engineering and Technology, Modinagar, Ghaziabad, Uttar Pradesh -201204
9)Nirban Laskar
Address of Applicant :Assistant Professor, Department of Civil Engineering, Mizoram University, Aizawl, Mizoram - 796004
10)Prof. Dhiresh S Shastri
Address of Applicant :Lecturer, Department of Mechanical Engineering, Dr. Vishwanath Karad MIT World Peace University, Pune-411038, India
11)Mr. L. Karthick
Address of Applicant :Assistant Professor, Department of Mechanical Engineering, Hindusthan College Of Engineering and Technology, Valley Campus, Pollachi Highway, Coimbatore - 641032, Tamilnadu

(57) Abstract :

[06] The study has been motivated by the challenge to join a low cost open hardware technology to the well knowledge thermometric practices used on the determination of the heat of hydration and temperature rise of the mass concrete. It was produced a data logger capable of record and publish in real time by the web (IOT) the temperature reached at different regions of mass concert structure during its hardening stage. The results of the experimental stage of this work have shown that the data logger constructed is capable to record with accuracy and precision the temperature rise of the structure as a result of the exotheric hydration reactions of the cement Portland. Accompanied Drawing [FIG. 1] [FIG. 2][FIG. 3] [FIG. 4] [FIG. 5] [FIG. 6][FIG. 7] [FIG. 8] [FIG. 9]

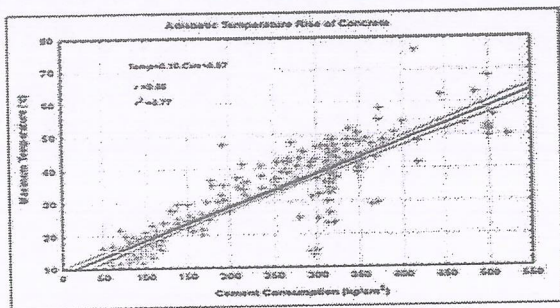


Figure 1. Influence of binder consumption on adiabatic temperature rise

No. of Pages : 18 No. of Claims : 3

DM
Registrar
Jaipur National University