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| |  |  | | --- | --- | | **UJIIndoorLoc Data Set**  **Abstract**: The UJIIndoorLoc is a Multi-Building Multi-Floor indoor localization database to test Indoor Positioning System that rely on WLAN/WiFi fingerprint. |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **Data Set Characteristics:** | Multivariate | **Number of Instances:** | 21048 |  |  | | **Attribute Characteristics:** | Integer, Real | **Number of Attributes:** | 529 |  |  | | **Associated Tasks:** | Classification, Regression |  |  |  |  |   **Source:**  Creators/Contact  Joaquín Torres-Sospedra jtorres +@+ uji.es  Raul Montoliu montoliu +@+ uji.es  Adolfo Martínez-Usó admarus +@+ upv.es  Joaquín Huerta huerta +@+ uji.es  UJI - Institute of New Imaging Technologies, Universitat Jaume I, Avda. Vicente Sos Baynat S/N, 12071, Castellón, Spain.  UPV - Departamento de Sistemas Informáticos y Computación, Universitat Politècnica de València, Valencia, Spain.  **Data Set Information:**  This database is focused on WLAN fingerprint-based ones (also known as WiFi Fingerprinting).   The UJIIndoorLoc database covers three buildings of Universitat Jaume I with 4 or more floors and almost 110.000m2. It can be used for classification, e.g. actual building and floor identification, or regression, e.g. actual longitude and latitude estimation. It was created in 2013 by means of more than 20 different users and 25 Android devices. The database consists of 19937 training/reference records (trainingData.csv file) and 1111 validation/test records (validationData.csv file).   The 529 attributes contain the WiFi fingerprint, the coordinates where it was taken, and other useful information.   Each WiFi fingerprint can be characterized by the detected Wireless Access Points (WAPs) and the corresponding Received Signal Strength Intensity (RSSI). The intensity values are represented as negative integer values ranging -104dBm (extremely poor signal) to 0dbM. The positive value 100 is used to denote when a WAP was not detected. During the database creation, 520 different WAPs were detected. Thus, the WiFi fingerprint is composed by 520 intensity values.   Then the coordinates (latitude, longitude, floor) and Building ID are provided as the attributes to be predicted.   Additional information has been provided.   The particular space (offices, labs, etc.) and the relative position (inside/outside the space) where the capture was taken have been recorded. Outside means that the capture was taken in front of the door of the space.   Information about who (user), how (android device & version) and when (timestamp) WiFi capture was taken is also recorded.   **Attribute Information:**  Attribute 001 (WAP001): Intensity value for WAP001. Negative integer values from -104 to 0 and +100. Positive value 100 used if WAP001 was not detected.  ....  Attribute 520 (WAP520): Intensity value for WAP520. Negative integer values from -104 to 0 and +100. Positive Value 100 used if WAP520 was not detected.  Attribute 521 (Longitude): Longitude. Negative real values from -7695.9387549299299000 to -7299.786516730871000  Attribute 522 (Latitude): Latitude. Positive real values from 4864745.7450159714 to 4865017.3646842018.  Attribute 523 (Floor): Altitude in floors inside the building. Integer values from 0 to 4.  Attribute 524 (BuildingID): ID to identify the building. Measures were taken in three different buildings. Categorical integer values from 0 to 2.  Attribute 525 (SpaceID): Internal ID number to identify the Space (office, corridor, classroom) where the capture was taken. Categorical integer values.  Attribute 526 (RelativePosition): Relative position with respect to the Space (1 - Inside, 2 - Outside in Front of the door). Categorical integer values.  Attribute 527 (UserID): User identifier (see below). Categorical integer values.  Attribute 528 (PhoneID): Android device identifier (see below). Categorical integer values.  Attribute 529 (Timestamp): UNIX Time when the capture was taken. Integer value.    ---------------------------------------------  UserID Anonymized user Height (cm)  ---------------------------------------------  0 USER0000 (Validation User) N/A  1 USER0001 170  2 USER0002 176  3 USER0003 172  4 USER0004 174  5 USER0005 184  6 USER0006 180  7 USER0007 160  8 USER0008 176  9 USER0009 177  10 USER0010 186  11 USER0011 176  12 USER0012 158  13 USER0013 174  14 USER0014 173  15 USER0015 174  16 USER0016 171  17 USER0017 166  18 USER0018 162  ----------------------------------------------   ----------------------------------------------  PhoneID Android Device Android Ver. UserID  ----------------------------------------------  0 Celkon A27 4.0.4(6577) 0  1 GT-I8160 2.3.6 8  2 GT-I8160 4.1.2 0  3 GT-I9100 4.0.4 5  4 GT-I9300 4.1.2 0  5 GT-I9505 4.2.2 0  6 GT-S5360 2.3.6 7  7 GT-S6500 2.3.6 14  8 Galaxy Nexus 4.2.2 10  9 Galaxy Nexus 4.3 0  10 HTC Desire HD 2.3.5 18  11 HTC One 4.1.2 15  12 HTC One 4.2.2 0  13 HTC Wildfire S 2.3.5 0,11  14 LT22i 4.0.4 0,1,9,16  15 LT22i 4.1.2 0  16 LT26i 4.0.4 3  17 M1005D 4.0.4 13  18 MT11i 2.3.4 4  19 Nexus 4 4.2.2 6  20 Nexus 4 4.3 0  21 Nexus S 4.1.2 0  22 Orange Monte Carlo 2.3.5 17  23 Transformer TF101 4.0.3 2  24 bq Curie 4.1.1 12  ---------------------------------------------- |