

QUAKE BULLETIN

Monthly Bulletin

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EARTHQUAKE EVENTS:

This database will give the information about the earthquakes that occurred worldwide and India wide from March 2015. The list of the earthquakes is as follows:

Worldwide:

(Source: <http://earthquake.usgs.gov/earthquakes/>)

Date	Time (UTC)	Lat	Long	Depth (km)	M _w	Location
03-03-2015	10:37:29	000.769°S	98.663°W	28	6.1	53km NW of Sikabaluan, Indonesia
10-03-2015	20:55:44	6.769°S	72.996°W	157.9	6.2	8km NNE of Aratoca, Colombia
17-03-2015	22:12:28	001.658°N	126.490°E	45.8	6.2	137km NW of Kota Ternate, Indonesia
18-03-2015	18:27:28	036.097°S	73.626°W	10	6.2	82km NNW of Talcahuano, Chile
23-03-2015	04:51:37	018.384°S	69.146°W	120.9	6.4	48km ESE of Putre, Chile
29/03/2015	23:48:31	004.760°S	152.556°W	40	7.5	55km SE of Kokopo, Papua New Guinea
30/03/2015	8:18:00	015.388°S	172.904°W	11.5	6.4	109km NE of Hihifo, Tonga
30/03/2015	8:48:26	015.515°S	172.940°W	15.5	6.5	99km ENE of Hihifo, Tonga

India wide:

(Source: Indian Meteorological Department, IMD,
<http://www.imd.gov.in/section/seismo/dynamic/CMONTH.HTM>)

Date	Time (UTC)	Lat	Long	Depth (km)	M _w	Location
07-03-2015	10:58:20	25.1°N	94.2°E	30	3.1	UKHRUL-MANIPUR
17-03-2015	15:28:37	24.5°N	94.5°E	96	4	MYANMAR - INDIA (MANIPUR) BORDER REGION
19-03-2015	02:14:58	36.8°N	73.5°E	10	3.8	INDIA(J& K)-PAKISTAN BORDER REGION
19-03-2015	03:36:59	16.1°N	80.9°E	5	3	DIST GUNTUR - KRISHNA BORDER, ANDHRA PRADESH
19-03-2015	09:41:55	24.0°N	72.7°E	5	3.5	DISTRICT MAHESANA, GUJARAT
20.03.2015	21:44:58	24.9°N	94.6°E	10	3.1	MANIPUR, UKHRUL
21-03-2015	17:44:37	36.4°N	71.7°E	86	5.1	HINDU KUSH REGION,

						AFGHANISTAN
22-03-2015	10:20:19	25.4°N	92.6°E	44	3.7	DISTT.JAINTIA HILLS, MEGHALAYA
22-03-2015	12:06:37	22.0°N	92.9°E	10	4	MYANMAR - INDIA (MIZORAM) BORDER REGION
22-03-2015	18:12:26	02.0°N	89.6°E	10	5.2	INDIAN OCEAN
23-03-2015	11:53:26	29.1°N	77.5°E	10	3	MEERUT, UTTAR PRADESH
23-03-2015	23:27:45	26.1°N	94.5°E	20	3.5	ZUNHEBOTO, NAGALAND
25-03-2015	06:41:32	36.5°N	71.5°E	108	5.1	HINDU KUSH REGION, AFGHANISTAN
25-03-2015	10:13:08	13.4°N	91.9°E	6	4	NORTH ANDAMAN SEA
27-03-2015	18:51:49	10.1°N	93.5°E	70	5	ANDAMAN ISLANDS
29-03-2015	01:03:02	27.9°N	94.3°E	10	3.4	UPPER SUBANSIRI, ARUNACHAL PRADESH
30/03/2015	19:56:48	24.6°N	93.1°E	10	3	IMPHAL, MANIPUR

GROUND MOTION RECORDS:

In our centre around 579 ground motion records are available. Since 1973 the ground motions are available with N-S, E-W and U-D components. All the available ground motions are listed.

(Source: PESMOS-IITR)

Sr No	Earthquake	Date	Station	Component		
				NS	EW	UD
1	Miyanmar	03 Sep 2009	Boko	✓	✓	✓
			Bongaigaon	✓	✓	✓
			Diphu	✓	✓	✓
			Goalpara	✓	✓	✓
			Guwhati	✓	✓	✓
			Hailakandi	✓	✓	✓
			Nongstoin	✓	✓	✓
			Silchar	✓	✓	✓
			Tura	✓	✓	✓
2	Bhutan	21 Sep 2009	Boko	✓	✓	✓
			Bongaigaon	✓	✓	✓
			Cooch vihar	✓	✓	✓
			Darjeeling	✓	✓	✓
			Diphu	✓	✓	✓
			Gangtok	✓	✓	✓
			Goalpara	✓	✓	✓
			Kokhrajhar	✓	✓	✓
			Lakhimpur	✓	✓	✓
			Naugaon	✓	✓	✓
			Siliguri	✓	✓	✓
Tejpur	✓	✓	✓			
3	Uttarkashi	21 Sep 2009	Bageshwar	✓	✓	✓
			Barkot	✓	✓	✓
			Chamoli	✓	✓	✓
			Dhanaulti	✓	✓	✓

			Garsain	✓	✓	✓
			Ghanshali	✓	✓	✓
			Jubbal	✓	✓	✓
			Kapkot	✓	✓	✓
			Lansdown	✓	✓	✓
			Nathpa	✓	✓	✓
			Rampur	✓	✓	✓
			Rudraprayag	✓	✓	✓

EERC LIBRARY:

Publications:

The following publications are very useful for research and are available in server

- ❖ A. Penna (2015), "Seismic assessment of existing and strengthened stone-masonry buildings: critical issues and possible strategies", *Bulletin of Earthquake Engineering*, Vol. 13, pp. 1051-1071.
- ❖ Yavuz Kaya, Erdal Safak (2015), "Real-time analysis and interpretation of continuous data from structural health monitoring (SHM) systems", *Bulletin of Earthquake Engineering*, Vol. 13, pp. 917-934.
- ❖ J. Schwarz, L. Abrahamczyk, M. Leipold and T. Wenk (2015), "Vulnerability assessment and damage description for R.C. frame structures following the EMS-98 principles", *Bulletin of Earthquake Engineering*, Vol. 13, p. 1141-1159.
- ❖ **Saúl E. López**, A. Gustavo, Christoph Adam (2015), "A novel displacement-based seismic design method for framed structures considering P-Delta induced dynamic instability", *Bulletin of Earthquake Engineering*, Vol. 13, pp. 1227-1247.
- ❖ C. Alarcon, M. A. Hube, R. Jünemann, J. C. dela Llera (2015), "Characteristics and displacement capacity of reinforced concrete walls in damaged buildings during 2010 Chile earthquake", *Bulletin of Earthquake Engineering*, Vol. 13, pp. 1119-1139.

❖ Reports:

The following reports are very useful for research

- ❖ Casari M. and Wilkie S. (2004), "Sequencing Repairs after an Earthquake: An Economic Approach", PEER Report 2003/09, Pacific earthquake Engineering Research Centre, College of Engineering, Univ. of California, Berkeley.