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Fall 11-22-2020

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DEKA, PRANJAL, "A Scientometric Profile of Dibrugarh University, Dibrugarh (Assam) through the Lens of Web of Science, During 1989-2020" (2020). Library Philosophy and Practice (e-journal). 4584. https://digitalcommons.unl.edu/libphilprac/4584

# A Scientometric Profile of Dibrugarh University, Dibrugarh (Assam) through the Lens of Web of Science, During 1989-2020

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#### **Abstract:**

Dibrugarh University(DU) is a leading higher educational institution in NE India. It has a significant impact on research and development. This study covers the research productivity of the university from 1989-2020 through the Web of Science Database. The study reveals that research publications of the university are growing day by day in different dimensions. The year 2019 is the most productive year of the university. The department of chemistry is a significant department for research productivity. The university has proper international and intranational coordination among various institutions and researchers.

**Keywords:** Research, Publications, Dibrugarh University, Prolific Author, VosViewer, Web of Science.

#### **Introduction:**

Dibrugarh University was established in 1965 consequent upon the Dibrugarh University Act's provisions, 1965, enacted by the Assam Legislative Assembly. It is a leading research and innovation-driven University that acts as a spatial slot to configure North East India's socio-cultural dynamics. The University encourages myriad enterprises that harbor on a constellation of thinking, theorizing, and reflection.

Dibrugarh University is one of the educational centers of excellence. It seeks to amalgamate multidisciplinary fields with numerous theoretical perspectives, cultural diversity with the praxis of knowledge, and region-specific issues with a global horizon. The University has a prolific and productive industrial, academic interface. With its strong global links in teaching and research programs, the University offers dynamic educational experiences that prepare the next generation to lead and make a difference and thus contribute to society. The University hosts 177 affiliated colleges and institutes that spread over nine districts of Assam.

Being true to its mission of widening the wings of holistic education and instilling a passion for research and development among generations of learners, the University has significantly contributed to North East India's academic, cultural, and economic development. It takes pride in 'reaching the learners' in our nation's diverse regions and upholds numerous knowledge formation

and dissemination systems, thus 'letting the learners reach' the institute. The University vouches for a cultural network of interconnections and differences: it is a dynamic, living, growing, animating, and eclectic force-field.

#### **Objectives of the Study:**

- To find out the year-wise research productivity of Dibrugarh University.
- To find out the different types of publications of Dibrugarh University.
- To find out the top collaborative organizations of Dibrugarh University.
- To find out the top collaborative countries of Dibrugarh University.

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#### Methodology:

The Web of Science (WoS) database is used to collect the data on research publications of Dibrugarh University. To find the records in Basic search, use the term 'Dibrugarh University' as organizations enhanced; a total of 1194 records were found on the date 25 October 2020. Collected data were analyzed accordingly for the visualization of the records used VOSviewer.

### **Scope and Limitations of the Study:**

This study only considers the WOS database; no other database consider for the study.

#### **Data Analysis and Interpretation:**

#### **Year-Wise Publications of Dibrugarh University:**

Table -1 shows the year wise research productivity of Dibrugarh University, from 1989-2020 (Sept.). The year 2019 is the most productive year for Dibrugarh University. In this year's total, no 100 papers (8.375%) were published. the year wise productivity of Dibrugarh University are 2020 (7.203%), 2019 (8.375%), 2018 (6.868%), 2017(8.124%), 2016(7.37%), 2015 (6.198%), 2014 (7.454%), 2013(5.109%), 2012(5.444%), 2011 (6.365%), 2010(4.69%), 2009 (2.59%), 2008 (3.266%), 2007 (2.178%), 2006 (1.34%), 2005 (1.508%), 2004(1.843%), 2003(1.424%), 2002(1.256%),2001(1.508%),2000(1.173%),1999(1.591%),1998(0.754%),1997(1.005),1996(1.256),1995(0.419%),1994(0.335%),1993(0.503%), 1992(1.005%), 1991(0.586%), 1990(0.503%), 1989(0.754%),

Table-1: Year-wise	Publication of .	Dibrugarh	University
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Years	Records	% of 1194
2020	86	7.203
2019	100	8.375
2018	82	6.868
2017	97	8.124
2016	88	7.370
2015	74	6.198
2014	89	7.454

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2013	61	5.109
2012	65	5.444
2011	76	6.365
2010	56	4.690
2009	31	2.596
2008	39	3.266
2007	26	2.178
2006	16	1.340
2005	18	1.508
2004	22	1.843
2003	17	1.424
2002	15	1.256
2001	18	1.508
2000	14	1.173
1999	19	1.591
1998	9	0.754
1997	12	1.005
1996	15	1.256
1995	5	0.419
1994	4	0.335
1993	6	0.503
1992	12	1.005
1991	7	0.586
1990	6	0.503
1989	9	0.754

## Types of Research Publications of Dibrugarh University:

Table-2 shows the different types of research publications published by Dibrugarh University. Highest publications on Articles,1089(91.206%), and the lowest number of publications on Book Review and Retracted Publications, 1(0.84%). Other publications are Review 34(2.848%), Meeting Abstract 33(2.764%), Proceedings paper 27 (2.261%), Early Access 20 (1.675%), Editorial Material 10 (0.838%), Note 10(8.838%), Letter 9(0.754%), Correction 6(0.503%), News Item 2(0.168%).

Table -2: Types of publications of Dibrugarh University

<b>Document Types</b>	Records	% of 1194
Article	1089	91.206
Review	34	2.848
Meeting Abstract	33	2.764
Proceedings Paper	27	2.261
Early Access	20	1.675
Editorial Material	10	0.838

Note	10	0.838
Letter	9	0.754
Correction	6	0.503
News Item	2	0.168
Book Review	1	0.084
Retracted Publication	1	0.084

#### **Top Twenty-Five Research Area of Dibrugarh University:**

Dibrugarh University has progressed in different research activities. Table- 3 shows the top twenty-five research area of the university. Chemistry is the most productive department with 355 publications. Another research area is Pharmacology Pharmacy-170(14.238%), Physics – 93 ( 7.789%), Engineering- 92(7.705%), Science Technology other Topics- 87(7.286%) Geology-76 (6.365%) Meteorology Atmospheric Sciences- 68(5.695%) Polymer Science- 60 (5.025%), Astronomy Astrophysics-51(4.271%), Materials Science-51(4.271%), Biochemistry Molecular Mathematics-36(3.015%), Science-32 Biology-50(4.188%), Computer (2.680%),Thermodynamics-32(2.680), Environmental Sciences Ecology-31(2.596%), Biotechnology Applied Microbiology- 22(1.843%), Agriculture-21(1.759%), Geochemistry Geophysics-21 (1.759%), Optics-18(1.508%), Energy Fuels-16(1.340%), Microbiology-16(1.34%), Plant Sciences-16(1.340%), Food Science Technology-15(1.256%), Life Sciences Biomedicine Other Topics-13(1.089%), Toxicology-13(1.089%)

Table- 3: Top Twenty-Five Research Area of Dibrugarh University

Rank	Research Areas	Records	% of 1194
1	Chemistry	355	29.732
2	Pharmacology Pharmacy	170	14.238
3	Physics	93	7.789
4	Engineering	92	7.705
5	Science Technology other Topics	87	7.286
6	Geology	76	6.365
7	Meteorology Atmospheric Sciences	68	5.695
8	Polymer Science	60	5.025
9	Astronomy Astrophysics	51	4.271
10	Materials Science	51	4.271
11	Biochemistry Molecular Biology	50	4.188
12	Mathematics	36	3.015
13	Computer Science	32	2.680
14	Thermodynamics	32	2.680
15	Environmental Sciences Ecology	31	2.596
16	Biotechnology Applied Microbiology	22	1.843
17	Agriculture	21	1.759
18	Geochemistry Geophysics	21	1.759
19	Optics	18	1.508
20	Energy Fuels	16	1.340

21	Microbiology	16	1.340
22	Plant Sciences	16	1.340
23	Food Science Technology	15	1.256
24	Life Sciences Biomedicine Other Topics	13	1.089
25	Toxicology	13	1.089

## **Top Twenty Five Collaborative Organizations of Dibrugarh University:**

Collaboration enhances the quality of research productivity; Table-4 shows the collaborative organizations of Dibrugarh University. Along with these twenty-five institutions, another 451 Organizations-Enhanced with the university.

**Table-4: Top Twenty Five Collaborative Organizations** 

Rank	Organizations-Enhanced	Records	% of 1194
1	DIBRUGARH UNIVERSITY	1194	100.000
2	COUNCIL OF SCIENTIFIC INDUSTRIAL RESEARCH CSIR INDIA	177	14.824
3	CSIR NORTH EAST INSTITUTE OF SCIENCE TECHNOLOGY	130	10.888
	NEIST		
4	TEZPUR UNIVERSITY	74	6.198
5	GAUHATI UNIVERSITY	38	3.183
6	INDIAN INSTITUTE OF TECHNOLOGY SYSTEM IIT SYSTEM	38	3.183
7	INDIAN COUNCIL OF MEDICAL RESEARCH ICMR	37	3.099
8	SAM HIGGINBOTTOM UNIVERSITY OF AGRICULTURE	34	2.848
	TECHNOLOGY SCIENCES		
9	DEFENCE RESEARCH DEVELOPMENT ORGANISATION DRDO	33	2.764
10	ICMR NATIONAL INSTITUTE OF TRADITIONAL MEDICINE	32	2.680
	NITM		
11		29	2.429
12	DEPARTMENT OF SPACE DOS GOVERNMENT OF INDIA	29	2.429
13	DEPARTMENT OF SCIENCE TECHNOLOGY INDIA	23	1.926
14	INDIAN SPACE RESEARCH ORGANISATION	21	1.759
15	CSIR ACADEMY OF SCIENTIFIC INNOVATIVE RESEARCH	20	1.675
	ACSIR		
16	VIKRAM SARABHAI SPACE CENTER VSSC	19	1.591
17		17	1.424
18		15	1.256
19	SLOVAK UNIVERSITY OF TECHNOLOGY BRATISLAVA	15	1.256
20	JADAVPUR UNIVERSITY	14	1.173
21	SIBSAGAR COLL	14	1.173
22	CSIR CENTRAL SALT MARINE CHEMICAL RESEARCH	12	1.005
	INSTITUTE CSMCRI		
23	JB COLL	12	1.005
24		12	1.005
25	ASSAM AGRICULTURAL UNIVERSITY	11	0.921

#### **International Collaboration of Dibrugarh University:**

International Collaboration is a prime concern for research and development. Table-5 shows the researcher collaborations of Dibrugarh University USA-25 (2.094%), Peoples R China-20(1.675%), Slovakia -15 (1.256%), Czech Republic-14 (1.173%)Japan-13(1.089%), Malaysia-9 (0.754%) France-8(0.670), Italy - 7(0.586%), Australia-6 (0.5035),England-6(0.503%), Germany - 6(0.503%), North Ireland- 6(0.503%), South Korea-6(0.503%), Iran-5(0.419%), Portugal-5(0.419%) Brazil-3(0.2515), Canada-3(0.251), Saudi Arabia-3 (0.251%), Singapore-3(0.251%), South Africa- 3 (0.251%), Taiwan-3(0.251%), Indonesia-2(0.168%), Ireland- 2(0.168%), Nepal-2 (0.168%) Nigeria - 2(0.168%), Poland-2(0.168%), Thailand-2(0.168%), Tunisia- 2 (0.168%), Vietnam-2(0.168%), Austria-1(0.084%), Bangladesh-1(0.084%), Botswana-1(0.084%), Denmark-1(0.084%), Eritrea-1(0.084%), Estonia-1(0.084%), Ghana-1(0.084%), Hungary-1(0.084%), Morocco-1(0.084%), Spain-1(0.084%), Switzerland-1(0.084%), Ukraine-1(0.084%)

Table-5: International Collaboration of Dibrugarh University

Rank	Countries/Regions	Records	% of 1194
1	India	1194	100.000
2	USA	25	2.094
3	Peoples R China	20	1.675
4	Slovakia	15	1.256
5	Czech Republic	14	1.173
6	Japan	13	1.089
7	Malaysia	9	0.754
8	France	8	0.670
9	Italy	7	0.586
10	Australia	6	0.503
11	England	6	0.503
12	Germany	6	0.503
13	North Ireland	6	0.503
14	South Korea	6	0.503
15	Iran	5	0.419
16	Portugal	5	0.419
17	Brazil	3	0.251
18	Canada	3	0.251
19	Saudi Arabia	3	0.251
20	Singapore	3	0.251
21	South Africa	3	0.251
22	Taiwan	3	0.251
23	Indonesia	2	0.168
24	Ireland	2	0.168
25	Nepal	2	0.168
26	Nigeria	2	0.168
27	Poland	2	0.168
28	Thailand	2	0.168
29	Tunisia	2	0.168

30	Vietnam	2	0.168
31	Austria	1	0.084
32	Bangladesh	1	0.084
33	Botswana	1	0.084
34	Denmark	1	0.084
35	Eritrea	1	0.084
36	Estonia	1	0.084
37	Ghana	1	0.084
38	Hungary	1	0.084
39	Morocco	1	0.084
40	Spain	1	0.084
41	Switzerland	1	0.084
42	Ukraine	1	0.084

#### **Most Prolific Authors of Dibrugarh University:**

Table-6 shows the top twenty-five prolific authors of Dibrugarh University; the authors are Bhuyan PK- 81 (6.784%), Gogoi PK- 70(5.863%), Dass NN-58(4.858%), Mazumder B-49(4.104%), Sarma D- 48(4.020%), Bora U-45(3.769%), Das P 35(2.931%), Nath LK- 35(2.931%), Borah G-33(2.764%), Singh UP-30(2.513%), Borkotokey S-29(2.429%), Chetia D-29(2.429%), Bhat HR 28(2.34%), Chakraborty -28(2.345%), Chattopadhyay P-28(2.345%), Dutta A- 28 (2.345%) Kumar A- 28 (2.345%) Pathak B- 28 (2.345%), Ghosh SK- 27(2.261%), Das MK - 26(2.178%), Yadav RNS-26(2.178%), Dutta P- 25 (2.094%) Bhuyan K 24 (2.01%) Baruah GD-22(1.843%), Buragohain AK-22 (1.843%)

Table -6 Most Prolific Authors of Dibrugarh University

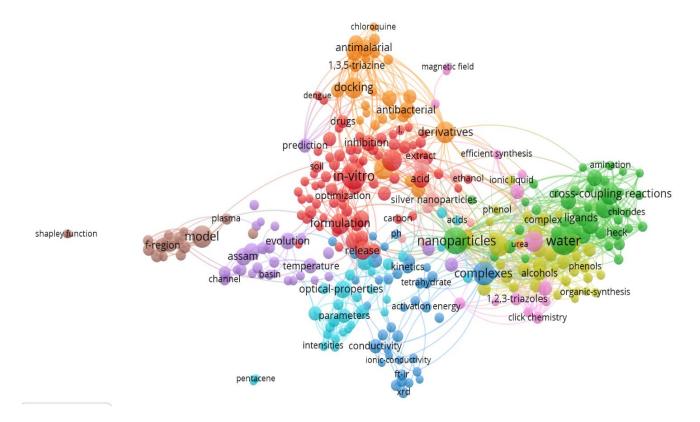
Rank	Authors	Records	% of 1194
1	BHUYAN PK	81	6.784
2	GOGOI PK	70	5.863
3	DASS NN	58	4.858
4	MAZUMDER B	49	4.104
5	SARMA D	48	4.020
6	BORA U	45	3.769
7	DAS P	35	2.931
8 -	NATH LK	35	2.931
9	BORAH G	33	2.764
10	SINGH UP	30	2.513
11	BORKOTOKEY S	29	2.429
12	CHETIA D	29	2.429
13	BHAT HR	28	2.345
14	CHAKRABORTY S	28	2.345
15	CHATTOPADHYAY P	28	2.345
16	DUTTA A	28	2.345
17	KUMAR A	28	2.345
18	PATHAK B	28	2.345
19	GHOSH SK	27	2.261
20	DAS MK	26	2.178

21	YADAV RNS	26	2.178
22	DUTTA P	25	2.094
23	BHUYAN K	24	2.010
24	BARUAH GD	22	1.843
25	BURAGOHAIN AK	22	1.843

## **Co-occurrence of Keywords:**

Fig-1, Shows the co-occurrence of keywords in Dibrugarh University research publications. Here minimum occurrence of keywords is 5, and 6052 keywords 317 meet the thresholds.

Fig -1: Co-Occurrence of Keywords of Dibrugarh Univerity Research Publications



#### **Conclusion:**

The study shows a scenario of research publications of Dibrugarh University. The university has a significant role in research and development. This study reveals that the year 2019 is the most productive year of the university with 100 nos publication; maximum no research output as articles; chemistry is the university's most significant research department with 355 nos publications. Council of Scientific Industrial Research (CSIR), India, is a significant collaborator of Dibrugarh University. Dibrugarh University collaborated with the researcher of forty-five countries, the highest no of collaboration with the USA(25 publications). PK Bhuyan is the most prolific author of the university, with 81 publications. In the occurrence of keywords, from 6052, 317 meet the thresholds with a minimum of five occurrences.

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