1. **Write a summary of your research interests (*not more than 200 words*)**

Aphasia is an impairment of language, affecting the production or comprehension of speech and the ability to read or write. Aphasia is caused due to injury to the brain following stroke , traumatic injury etc.

. The general aim of aphasia treatment includes

* To restore limited language abilities
* To strenghthen intact models
* To compensate for language impairments
* To generalize achieved skills and strategies in possible contexts

Treatment is based on the language used by the person with aphasia but what if they use more than one language .There are various treatment approaches used in managing persons with aphasia . To an extent majority of them are fruitful but I would like to put some light on the efficacy of present treatment strategies in Malayalam – English bilinguals. Was interested in knowing which language among the bilinguals will promote better outcome. For example the one that was used by them officially or their mother tongue .

a) Any five scientific journals from among the AIISH subscriptions  (*Name of the journal, publisher,  available issues with volume  no. & year  i.e. From V. No. 1 (1) Year to V. ...., Year....* )

|  |  |  |
| --- | --- | --- |
| Aphasiology | Tailor & Francis online | From volume no. 1 (1987) v. No. 31 (2017) |
| Annals of Neurology | Wiley Online Library | From volume no. 1(**1977) to** V. No **81 (2017)** |
| * Bilingualism: Language and Cognition
 | Sage publications ltd | From volume no. 1 (1998) to v. No. 20 (2017) |
| Brain & Language  | Elsevier | From volume no. 1 (1974) to v. No. 168 (2017) |
| Cortex | Elsevier | From volume no. 43 (2007) to v. No. 92 (2017) |

b) Any 10 books available  with AIISH  L& IC  (*Name/ title of the book, Author, Publisher, Year,    Accession Number*)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No. | Name  | Author  | Publisher  | Year  | Accession number. |
| 1. | Aspects of Bilingual Aphasia | Paradis, Michel | Pergamon | 1995 | 12356 |
| 2. | Adult Aphasia Assessment & Treatment  | Eisenson, John | Prentice hall inc | 1973 | 4214 |
| 3. | A coursebook on Aphasia & other neurogenic disorders | M.N Hegde | Singular Publishing company | 2006 | 14222 |
| 4. | A selected bibliography on Brain Impairment Aphasia and organic psychodiagnosis. | Wepman, Joseph M | Language research associates  | 1961 | 2891 |
| 5. | Acquired Aphasia | Sarno , Martha Taylor | Academic press inc | 1998 | 12278 |
| 6. | Aphasia & related neurogenic disorders | Lapointe | Thieme Medicsl Publications | 2005 | 15480 |
| 7 | Aphasia handbook for adults & children | Agranowitz  | Charles C Thomas publications | 1964 | 1196 |
| 8. | Aphasia Rehabilitation :Impairment & its consequences | Nadine Martin | Plural publications | 2008 | 16441 |
| 9. | Aphasia – A clinical approach | John C Rosenbek | Pro-ed | 1989 | 10912 |
| 10 | Aphasia – A clinical Perspeective | D Frank Benson | Oxford university press | 1996 | 13053 |

c) Any  five PG dissertations  (*Name/Title of the report, Author, Guide, Year, Accession Number*)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No  | Title of the report | Author  | Guide | Year  | Accession number.  |
| 1. | Aphasia Therapy- Guidelines for home training | Malathy Swaminathan | Prathiba Karanth | 1995 | 308 |
| 2. | Confrontation naming versus picture to word matching in bilingual persons with aphasia | Simmy A S | S P Goswami | 2008 | 647 |
| 3. | Cross Linguistic Priming in Kannada – English bilingual aphasics. | Mandira Bhatacharjee | Jayashree C Shanbal | 2013 | 972 |
| 4. | English – Malayalam Bilingual Aphasia Test | Annamma George | Prathiba Karanth | 1996 | 322 |
| 5. | Noun & Verb processing in Bilingual Malayalam – English individuals with aphasia | Nayana L R | Shyamala K C  | 2011 | 834 |

d) Any two ARF projects (*Name/Title of the report, Investigators, Year, Accession Number*)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| NO. | Name  | Investigators  | Year  | Accession number |
| 1 | Cognitive linguistic deficits in aphasia | Shyamala K C | 2009-2010 | DP 73 |
| 2. | Computerised version of manual for adult aphasia therapy in Kannada(CV-MAAT-K) | Goswami S.P & Renuka C | 2011-2013 | DP 103 |

1. **Critically evaluate the following information resources pertaining to communication disorders.**

       a. Encyclopedia of Communication Disorders

       b. Status of Disability in India, 2012

**Encyclopedia of Communication Disorders**

Edited by: Raymond D kent

Year: 2003

The encyclopedia of communication disorders is a reference book in the field of communication disorders. This is not only helpful for research but also for clinical applications in the field. It contains sections from experts in the field of communication disorders which explain the particular areas very comprehensively.

It deals with the basic things about communication disorders and even about the clinical diagnoses and management. The book also covers both child and adult speech, language disorders.

The book is divided into 4 parts or sections. That is- **Voice, speech, language & hearing**. Within all the categories the details are again divided and provided as – basic science, disorders and clinical management.

In **basic science** the details given are about normal aspects of speech and language in human beings- normal anatomy and physiology, psychology, linguistics etc. This gives the reader a basic idea about the further subsections and a foundation about the field.

In **disorders**- the definition, specific characteristics, assessment tools and methods for several disorders in each category are discussed.

The **clinical management** part deals with various approaches and techniques for each disorders, and also the different professional that should be included in the management of communication disorders such as behavioral, surgical, prosthetic etc. The differences in management of communication disorders in adult and children are also dealt with.

The topics covered include: cochlear implants in children and adults, speech perception, alaryngeal voice and speech rehabilitation, holistic voice therapy approaches, computer based therapy in children, aphasias, psychosocial problems associated with communication disorders etc.

The book includes a very rich bundle of information which covers the four major areas of communication disorders; all the information provided are clear, precise and comprehensive.

**Status of Disability in India, 2012**

 (Publisher: Rehabilitation council of India-RCI)

In earlier disability was considered as a shame or punishment for sins in an earlier life. But today persons with disability are finding places of importance in the country in all human endeavour.

Status of disability in India is a publication of Rehabilitation Council of India (RCI), which attempts to collate information on disability and to put it in the public domain so that person with disability and their care takers are able to ascertain the current situation on Disability in India. This document is published by RCI approximately every five years.

In this edition, there are chapters which includes introduction- which includes the historical, philosophical and sociological perspective of disability, introduction to the various disabilities, policies and legislation, the magnitude of disability in India, agencies and institutions and issues that concern persons with disabilities, how technology impacts persons with disabilities and how we need to take advantage of technology to make life better for persons with disability in the country. The later chapters tell information about status of individual disabilities. The conclusion chapter summarises what governmental and non governmental agencies, persons with disabilities and their stakeholders need to do to take disability issues forward and to facilitate the implementation of Government schemes and policies.

This book give an insight to the reader in to the status of each disability in the country as it exists today. Ever since, care and consideration for the sick, elderly and the disabled has been part of the Indian culture and tradition. From the first chapter of this book the reader is getting the over view of how formal education has started for children with disability and how the attitude changed from charity to ‘rights’ and how the medical model has been changed to developmental and sociological model.

Detailed information on current status of different disabilities including visual impairment, leprosy cured, hearing impairment, locomotor disability, mental retardation, mental illness, autism, cerebral palsy, multiple disabilities, learning disabilities and the causes these disabilities are included in the first chapter.

 The second chapter covers, the policies and laws that govern the disabilities. It covers in brief the rehabilitation council of India act, 1992(RCI), National Trust Act, 1999, The Mental Health Act, 1987 and Right to Education act, 2009. Also, in accordance with the Census report of 2001 and the National Sample Survey the magnitude of disability is being 2.2% of the population.

Much more improvement has been happened in the last decade. But, the drawback of the data is, it lacks the information from the 2011 Census Report of India.

The third chapter highlights the current trends and development in the status of disability. Role of prevention and early intervention, community based rehabilitation, assistive technology and efforts of RCI are discussed here.

The later chapters provide more detailed information on disability specific issues and developments. The fact is that the number of persons with disabilities in the country is not accurately identified which leads to many issues.

There are few areas of disability such as the role of qualified professionals and the issues faced by the professionals in the field of disability management has to be highlighted in the upcoming edition.

This document will be useful to persons with disability, institutions working for them and government and non government institutions to make them aware of the various facets of disability and what needs to be done to make the world a happier place for persons with disability.

1. **Name the publishers of the AIISH subscribed e-journals ( *Title of the journal, Name of the  Publisher*)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl.No** | **Name of the E-Journal** | **Name of the publisher** | **Period** |
|  |  [Acta Oto-laryngologica](http://informahealthcare.com/loi/oto) |  Taylor & Francis | 1918 |
|  |  [Advances in Autism](http://www.emeraldinsight.com/loi/aia) |  Emarald insight | 2016 |
|  |  [Aging,Neuropsychology and Cognition](http://www.tandfonline.com/loi/nanc20#.Uuin5fvhXGg) |  Taylor & Francis | 1997 |
|  |  [American Annals of the Deaf](http://muse.jhu.edu/journals/aad/) |  Gallaudet University Press | 1980 |
|  |  [American Journal of Audiology](http://aja.pubs.asha.org/issue.aspx) |  ASHA publications | 1991 |
|  |  [American Journal of Speech Language Pathology](http://ajslp.pubs.asha.org/issue.aspx) | ASHA publications | 1991 |
|  |  [Annals of Dyslexia](http://link.springer.com/journal/volumesAndIssues/11881) |  Springer publications | 1997 |
|  |  [Aphasiology](http://www.tandfonline.com/loi/paph20?close=28&repitition=0#vol_28) |  Taylor & Francis | 1997 |
|  |  [Applied Acoustics](http://www.sciencedirect.com/science/journal/0003682X) |  Elsevier | 2017 |
|  |  [Applied Psycholinguistics](https://www.cambridge.org/core/journals/applied-psycholinguistics/all-issues) |  Cambridge University Press | 1999 |
|  |  [Archives of Otolaryngology Head and Neck Surgery](http://archotol.ama-assn.org/contents-by-date.0.dtl) |  The JAMA network | 1998 |
|  |  [Audiology and Neuro-Otology](http://content.karger.com/Journal/Home/224213) |  Karger | 1996 |
|  |  [Augmentative and Alternative Communication](http://informahealthcare.com/loi/aac) |  Taylor & Francis | 1985 |
|  |  [Autism : The International Journal of Research and Practice](http://aut.sagepub.com/content/by/year) |  Sage publications | 1999 |
|  | [Autism Research](http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291939-3806/issues) |  International Society for Autism Research, Wiley Periodicals | 2010 |
|  |  [Bilingualism : Language and Cognition](http://journals.cambridge.org/action/displayBackIssues?jid=BIL) |  Cambridge University Press | 1998 |
|  |  [Brain and Language](http://www.sciencedirect.com/science/journal/0093934X) |  Elsevier | 1974 |
|  |  [Canadian Journal of Linguistics](https://www.cambridge.org/core/journals/canadian-journal-of-linguistics-revue-canadienne-de-linguistique/latest-issue) |  Cambridge University Press | 2017 |
|  |  [Child Language Teaching and Therapy](http://clt.sagepub.com/content/by/year) |  Sage publications | 1997 |
|  |  [Cleft Palate Craniofacial Journal](http://www.cpcjournal.org/loi/cpcj) | Allen Press for the American Cleft Palate-Craniofacial Association | 1990 |
|  |  [Clinical Linguistics and Phonetics](http://informahealthcare.com/loi/clp) |  Taylor & Francis | 1987  |
|  |  [Cochlear Implants International](http://www.maneyonline.com/loi/cim) |  Taylor & Francis | 2000 |
|  |  [Communication Disorders Quarterly](http://cdq.sagepub.com/content/by/year) |  Sage publications | 1998  |
|  |  [Cortex](http://www.sciencedirect.com/science/journal/00109452) |  Elsevier publications | 2007 |
|  |  [Deafness and Education](http://www.maneyonline.com/loi/dei%22%20%5Ct%20%22_blank) |  Taylor & Francis | 1999 |
|  |  [Dementia](http://dem.sagepub.com/content/by/year) |  Sage publications | 2002 |
|  |  [Dyslexia](http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291099-0909/issues) | Springer International Publishing AG. | 2010  |
|  |  [Dysphagia](http://link.springer.com/journal/volumesAndIssues/455) |  Wiley online library | 1997 |
|  |  [Ear and Hearing](http://ovidsp.ovid.com/ovidweb.cgi?T=JS&NEWS=n&CSC=Y&PAGE=toc&D=ovft&AN=00003446-000000000-00000" \t "_blank) |  Lippincott Williams & Wilkins (LWW) | 1980  |
|  |  [Evidence Based Communication Assessment and Intervention](http://www.tandfonline.com/loi/tebc20) |  Taylor & Francis | 2007  |
|  |  [Exceptional Children](http://ecx.sagepub.com/content/by/year) |  Sage publications | 2001 |
|  |  [Focus on Autism and Other Developmental Disabilities](http://foa.sagepub.com/content/by/year) |  Sage publications | 1999 |
|  |  [Folia Phoniatrica](http://content.karger.com/Journal/Home/224177) |  Karger publishers | 1949 |
| 1.
 |  [Gesture](http://www.ingentaconnect.com/content/jbp/gest) |  John Benjamins Publishing Company | 2011 |
|  |  [Hearing Balance and Communication ( Audiological Medicine)](http://informahealthcare.com/loi/aum) |   Taylor & Francis | 1997 |
|  |  [Hearing Journal](http://ovidsp.tx.ovid.com/sp-3.22.1b/ovidweb.cgi?&S=GHMNFPAFOCDDDBDJNCIKHCIBOBCEAA00&Browse=Toc+Children%7cYES%7cS.sh.27132_1475129123_2.27132_1475129123_14.27132_1475129123_22%7c51%7c50) |  Lippincott Williams & Wilkins (LWW) | 1994  |
|  |  [Hearing Research](http://www.sciencedirect.com/science/journal/03785955) |  Elsevier publications | 2010 |
|  |  [International Journal of Applied Linguistics](http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291473-4192/issues) |  John Wiley & sons ltd. | 2016 |
|  |  [International Journal of Audiology](http://informahealthcare.com/loi/ija) |  Taylor & Francis | 1962 |
|  |  [International Journal of Bilingual Education and Bilingualism](http://www.tandfonline.com/loi/rbeb20) |  Sage publications | 1998 |
|  |  [International Journal of Bilingualism](http://ijb.sagepub.com/content/by/year) |  Sage publications | 1997 |
|  |  [International Journal of Language and Communication Disorders](http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291460-6984/issues) |  John Wiley & sons ltd. | 1997 |
|  |  [International Journal of Pediatric Otorhinolaryngology](http://www.sciencedirect.com/science/journal/01655876) |  Elsevier publications | 2007 |
|  |  [International Journal of Speech Language and the Law](http://www.equinoxjournals.com/IJSLL/issue/archive)[(](http://www.equinoxjournals.com/IJSLL/issue/archive)formerly[Forensic Linguistics)](http://www.equinoxjournals.com/IJSLL/issue/archive) |  International association of forensic Linguists and International association for forensic phonetics and acoustics. | 1998  |
|  |  [International Journal of Speech Language Pathology](http://informahealthcare.com/loi/asl) |  Taylor & Francis | 1997 |
|  |  [International Journal of Speech Technology](http://www.springerlink.com/content/100275/) |  Springer International Publishing AG. | 1989 |
|  |  [Journal of Applied Research in Intellectual Disabilities](http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291468-3148/issues) |  John Wiley & sons ltd. | 2010 |
|  |  [Journal of Autism and Developmental Disorders](http://www.springerlink.com/content/104757/) |  Springer International Publishing AG. | 1997  |
|  |  Journal of Child Language |  Cambridge University Press | 1997  |
|  |  [Journal of Child Psychology and Psychiatry](http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291469-7610/issues) |  John Wiley & sons ltd. | 2010  |
|  | [Journal of Cleft Lip Palate and Craniofacial Anomalies](http://www.jclpca.org/backissues.asp) |   Indian Society of Cleft Lip Palate & Craniofacial Anomalies | 2016 |
|  | [Journal of Cognition and Development](http://www.tandfonline.com/loi/hjcd20#.Vwy__eY2WVI) |  Taylor & Francis | 2000 |
|  |  [Journal of Cognitive Neuroscience](http://www.mitpressjournals.org/loi/jocn) |  MIT press | 1989 |
|  |  [Journal of Communication Disorders](http://www.sciencedirect.com/science/journal/00219924) |  Wiley Blackwell | 1967 |
|  |  [Journal of Early Intervention](http://jei.sagepub.com/content/by/year) |  Sage publications | 1999 |
|  |  [Journal of Fluency Disorders](http://www.sciencedirect.com/science/journal/0094730X) |  Elsevier publications | 1974 |
|  |  [Journal of Indian Academy of Applied Psychology](http://www.jiaap.org/) |  [Indian Academy of Applied Psychology](https://en.wikipedia.org/w/index.php?title=Indian_Academy_of_Applied_Psychology&action=edit&redlink=1)  | 2015 |
|  |  [Journal of Indian Speech and Hearing Association](http://www.jisha.org/backissues.asp) |  Indian Speech and Hearing Association | 2016 |
|  |  [Journal of Intellectual and Developmental Disability](http://www.tandfonline.com/loi/cjid20#.VAhBhKN36Ms) |  the Australasian Society for Intellectual Disability.  | 1976 |
|  |  [Journal of Interactional Research in Communication Disorders](https://journals.equinoxpub.com/index.php/JIRCD/issue/archive) |   Equinox Publishing Ltd  | 2010 |
|  |  [Journal of Laryngology and Otology](http://journals.cambridge.org/action/displayBackIssues?jid=JLO) |  Cambridge University Press | 1887 |
|  |  [Journal of Laryngology and Voice](http://www.laryngologyandvoice.org/currentissue.asp?sabs=n) |  Wolters Kluwer | 2017 |
|  |  [Journal of Learning Disabilities](http://ldx.sagepub.com/content/by/year) |  Sage publications | 1999 |
|  |  [Journal of Memory and Language](http://www.sciencedirect.com/science/journal/0749596X) |  Elsevier publications | 2007 |
|  |  [Journal of Neurolinguistics](http://www.sciencedirect.com/science/journal/09116044) |  Elsevier publications | 1985 |
|  |  [Journal of Phonetics](http://www.sciencedirect.com/science/journal/00954470) |  Elsevier publications | 1995  |
|  |  [Journal of Pragmatics](http://www.sciencedirect.com/science/journal/03782166) |   Elsevier publications | 2007 |
|  |  [Journal of Psycholinguistic Research](http://www.springerlink.com/content/104271/) |  Springer publications | 1997 |
|  |  [Journal of Special Education](http://sed.sagepub.com/content/by/year) |   Sage publications | 1999 |
|  | [Journal of Speech Language and Hearing Research](http://jslhr.pubs.asha.org/issue.aspx) |  ASHA | 1958  |
|  |  [Journal of the Acoustical Society of America](http://scitation.aip.org/content/asa/journal/jasa/browse) |  The Acoustical Society of America | 1930  |
|  | [Journal of the American Academy of Audiology](http://www.ingentaconnect.com/content/aaa/jaaa) |  The American Academy of Audiology | 2002 |
|  |  [Journal of the International Phonetic Association](http://journals.cambridge.org/action/displayBackIssues?jid=IPA) | Cambridge University Press | 2001  |
|  |  [Journal of Vestibular Research](http://metapress.com/content/103172/?p=0389039dad3d4bcf9e306b77080c895c&pi=0) |  IOS press | 2000 |
|  |  [Journal of Voice](http://www.sciencedirect.com/science/journal/08921997) |  Elsevier publications | 1987  |
|  |  [Laboratory Phonology](http://www.degruyter.com/view/j/labphon) |  Association for  [Labora](http://www.degruyter.com/view/j/labphon)tory Phonology | 2010 |
|  |  [Language Acquisition](http://www.tandfonline.com/loi/hlac20?close=21&repitition=0#vol_21) |  Taylor & Francis | 2014 |
|  |  [Language and Cognition and Neuroscience](http://www.tandfonline.com/loi/plcp21#.VwzI7-Y2WVI) (formerly Language and Cognitive    Processes) |  Taylor & Francis | 1997 |
|  | [Language and Communication](http://www.sciencedirect.com/science/journal/02715309) |  Elsevier publications | 2007 |
|  |  [Language and Speech](http://las.sagepub.com/content/by/year) |  Sage publications Ltd. | 1999 |
|  | [Language Learning](http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291467-9922/issues) |  Wiley Blackwell | 2006 |
|  |  [Language Sciences](http://www.sciencedirect.com/science/journal/03880001) |  Elsevier publications | 2007 |
|  |  [Language Speech and Hearing Services in Schools](http://lshss.pubs.asha.org/issue.aspx) |  ASHA | 1970 |
|  | [Laryngoscope](http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291531-4995/issues) |  Wiley Blackwell | 1997 |
|  |  [Learning Disability Quarterly](http://ldq.sagepub.com/content/by/year) |  Sage publications Ltd. | 2010 |
|  | [Learning Disabilities Research & Practice](http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291540-5826/issues) |  Wiley Blackwell | 2000 |
|  |  [Logopedics Phoiatrica Vocology](http://informahealthcare.com/loi/log) |  Taylor & Francis |  1991 |
|  |  [Noise & Health](http://www.noiseandhealth.org/backissues.asp) |  Wolters Kluwer |  2015 |
|  |  [Otolaryngologic Clinics of North America](http://www.sciencedirect.com/science/journal/00306665) |  Elsevier publications | 1998 |
|  |  [Otology and Neurotology](http://ovidsp.tx.ovid.com/sp-3.19.0a/ovidweb.cgi?&S=AFCAFPEDKCDDDPDONCIKBDOBOCLGAA00&Browse=Toc+Children|NO|S.sh.2.14.31|2533|50) |  Lippincott Williams & Wilkins (LWW) |  2001 |
|  |  [Perspectives of the ASHA Special Interest Groups](http://perspectives.pubs.asha.org/issue.aspx#issueid=935966)  |  ASHA | 2016 |
|  |  [Phonetica](http://content.karger.com/Journal/Home/224275) |  Karger Publishers |  1957 |
|  |  [Phonology](http://journals.cambridge.org/action/displayBackIssues?jid=PHO) |  Cambridge University Press |  1997  |
|  | [Reading and Writing](http://link.springer.com/journal/11145/26/3/page/1%22%20%5Ct%20%22_blank) |  Springer Publications | 1997  |
|  | [Research in Autism Spectrum Disorders](http://www.sciencedirect.com/science/journal/17509467) |  Elsevier publications |  2007  |
|  |  [Seminars in Hearing](https://www.thieme-connect.com/products/ejournals/journal/10.1055/s-00000067) |  Thieme-Stratton Medical publishers |  1980 |
|  | [Seminars in Speech and Language](https://www.thieme-connect.com/products/ejournals/journal/10.1055/s-00000076) |  Thieme-Stratton Medical publishers |  1984 |
|  | [Sign Language and Linguistics](http://www.ingentaconnect.com/content/jbp/sll) | Ingenta connect publications | 2016 |
|  |  [Speech Communication](http://www.sciencedirect.com/science/journal/01676393) |  Else vier publications |  1982 |
|  |  [Speech, Language and Hearing](http://www.maneyonline.com/loi/slh) |  Taylor & Francis |  1996 |
|  |  [The Analysis of Verbal Behavior](http://link.springer.com/journal/40616) |  Springer publications |  2014 |
|  |  [Topics in Language Disorders](http://ovidsp.ovid.com/ovidweb.cgi?T=JS&NEWS=n&CSC=Y&PAGE=toc&D=ovft&AN=00011363-000000000-00000)   |  Lippincott Williams & Wilkins (LWW) |  2001 |
|  |  [Trends in Cognitive Sciences](http://www.sciencedirect.com/science/journal/13646613) |   Elsevier publications | 2016 |