Dr. Lukeshkumar Rajendra Bhuyar

Summary:

- Health Care Rehabilitation professional with experience of over 12+ years in Prosthetics and Orthotics at All India Institute of Physical Medicine and Rehabilitation (A.I.I.P.M.R) and OTTO BOCK INDIA
- Clinical Prosthetist and Orthotist and Academic Staff (Demonstrator) at AIIPMR, Government of India and recognized by MUHS University ,Nashik
- Provided **services to more than 10000+ patients with Locomotor Disabilities** in a multidisciplinary Rehabilitation set up
- Completed Masters degree in Prosthetics and Orthotics (MPO) to assure in-depth pragmatic knowledge of Prosthetics and Orthotics, under **MUHS (Gold Medalist-2018)**
- Recognized as a **top performer** to meet organizational goals and customer satisfaction
- Engaged as **Research Associate** with Biomedical Engineering and Technology incubation Centre (BETiC), Mechanical Engg.Dept., IIT Bombay

Skills and accomplishments:

- Prosthetic and Orthotic Management
- CAD CAM analysis and fitment
- Prosthetic and orthotic patient evaluation
- Proficient with OTTO BOCK modular systems such as Harmony System, Hydraulic Knee, Pneumatic Knee and C –Leg and OSSUR Products
- Well versed with conventional systems such as 4 bar linkage, drum break and through knee amputation knee joints
- 3D printing Technology

PROFESSIONAL EDUCATION Academic

Masters in Prosthetics & Orthotics, All India Institute of Physical Medicine and Rehabilitation, Mumbai, India, under MUHS, 2016 (July)-2018 (July)

Bachelor in Prosthetics & Orthotics, All India Institute of Physical Medicine and Rehabilitation, Mumbai, India, under MUHS, 2005(July)-2009 (Feb)

Other courses

Entrepreneurship Awareness Programme – Accounts Assistant Course – July 2009.

Medical Device Innovation Camp,IIT Bombay-2019 Auto Cad Lt 2000 course –Dec 2009.

PROFESSIONAL EXPERIENCE

Prosthetist and Orthotist

March 2015 - Till date

- Clinical Prosthetic and Orthotic assessment and fitting of lower extremity prosthesis
- Proficient time management to evaluate ,adjust and fit orthotic Devices
- Fitment of off shelf and custom spinal orthosis such as Milwaukee, Boston brace.
- Fitted different type of prosthetic feet, modular components and knee joints suiting

- patient activity level
- Fitment of upper limb prosthesis at different amputation levels
- Attending case clinics to discuss patient issues in a rehabilitation team.
- Suggesting and selecting materials and components used for custom AFO,KAFO,diabetic shoes with inserts.
- Repair and modify custom and prefabricated Orthoses
- Providing lectures in prosthetics and orthotics to AIIPMR academic batch
- Paper setter and Practical examiner for prosthetics and orthotics to MUHS university
- Participating in continuing rehabilitation programs from the Institute

All India Institute of Physical Medicine and Rehabilitation (AIIPMR), Mumbai, India

Junior Prosthetist and Orthotist

Aug 2009 - March 2015

- Orthotic assessment and fitting of lower extremity prosthesis
- Fitment and measurement of custom functional Devices such as KAFO,AFO,LSO,Diabetic shoes, compression stockings, knee orthosis and other such Devices.
- Evaluated and performed fitting on adults and children for custom and prefabricated Orthotic devices
- Evaluation and fitment of custom made spinal orthosis.
- Fitment of fracture braces related to trauma and sports injuries

OTTO BOCK India Pvt. Ltd. Mumbai

Clinical Prosthetist and Orthotist

March-Aug, 2009

- Evaluation ,casting ,designing and fitting of lower extremity prosthesis
- Attended fitment of microprocessor knee control joints such as C- leg
- Gait analysis of patient and suggestive corrective action on the prosthesis
- Fitment of hip disarticulation prosthesis
- Fitment of Rotationplasty prosthesis.

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All India Institute of Physical Medicine and Rehabilitation (AIIPMR), Mumbai, India

Internee Sept 2008-Feb 2009

- Evaluation Casting , designing and fitment of Lower/Upper Extremity Orthoses
 Evaluation Casting , designing and fitment of Lower/Upper Extremity Prostheses
- Evaluation Casting, designing and fitment of Spinal Orthoses
- Attended CP-Clinic Diabetic Clinic P&O Critics
- Repair and modify custom and prefabricated Orthoses.
- Participating in Continuing Rehabilitation Education programs conducted by the Institute

PROFESSIONAL DEVELOPMENT

- Rehabilitation council of India (Reg. No:A13667)
- Life Member: Orthotic and Prosthetic association of India (OPAI)
- Life Member: Indian Association of Assistive Technologist (IAAT)
- Life Member: Indian Federation of Neuro Rehabilitation (IFNR)
- Life Member: All India Cricket Association for the Physically Challenged (AICAPC)
- Life Member of Western India Prosthetic and Orthotic Society (WIPOS)
- Life Member of Society for Technologically Advanced Materials of India (STAMI)
- Life Member of InSc International Publishers (IIP)
- Reviewer of International Journal of Novel Research and Development
- Reviewer of International Journal of Current Science

Continuing Rehabilitation Education (CRE)

- 1. Hands on CRE on **Advances in the Prosthetic Management of Rotationplasty (Resource Person-Faculty)** at AIIPMR, Mumbai, October-2019
- 2. CRE on Principles of Amputee Rehabilation : Current Perspective at Artificial Limb Centre (ALC) Pune, May 2019
- 3. Hands on Training in **Upper Extremity Hand Splinting** at POCL, Mumbai, 2018
- 4. **Total surface bearing trans tibial socket and hydraulic ankle alignment workshop** by Endolite India Pvt. Ltd. at AIIPMR in 2016
- 5. Hands on CRE on Halo application in Spinal Injuries and Deformities at Indian Spinal Injury Centre, Delhi in Nov-2014
- 6. Workshop on effect of Echelon prosthetic foot from Endolite, held by ISHWAR institute Delhi in 2013
- 7. Participated in Continuing Rehab. Programme (CRE) on **Modular Prosthetic knee joint**, by ENDOLITE, Mumbai -2009
- 8. Participated in Continuing Rehab Programme on **Modular Trans-Femoral Prosthetic** socket by OTTO Bock, Mumbai. 2009
- 9. Participated in Continuing Rehab Programme on Mayo-electric arm prosthesis by OTTO Bock, Mumbai.
 - -2000

Conferences Attended

- 1. Deshpande-Gopalkrushnan Symposium on Innovation and Entrepreneurship, IIT Bombay in Jan 2019
- 1st National Conference of Indian Association of Assistive Technologists, Bhubaneswar, Orissa in Dec 2018
- 3. OPAI MIDCON-2017 on Cutting Edge Technology with Robotics in Prosthetics & Orthotics for Divyangjan, Deharadun in March 2017
- 4. XXII OPAI National conference on Prosthetics and Orthotics at Delhi in 2016
- 5. XVIII National Conference of Orthotic and Prosthetic Society of India (OPSI) 2008
- 6. Pre Conference Workshop on Podiatry and its management. 2008

Scientific Papers/ Posters presented in Conferences

- 1. Prosthetic management of Patient with Rotationplasty A case study; 1st National Conference of Indian Association of Assistive Technologists, Bhubaneswar, Orissa in Dec 2018
- Stance Controlled KAFO; 1st National Conference of Indian Association of Assistive Technologists, Bhubaneswar, Orissa in Dec 2018
- 3. Assistive Technologies in Stroke Rehabilitation" Empowering the Patients with Self- Management (poster);1st National Conference of Indian Association of Assistive Technologists, Bhubaneswar, Orissa in Dec 2018
- 4. Review of Osseointegration in the field of Prosthetics; OPAI MIDCON-2017 on Cutting Edge Technology with Robotics in Prosthetics & Orthotics for Divyangjan, Deharadun in March 2017
- Prosthetic management of Rotationplasty; Orthotic and Prosthetic Association of India (OPAI) conference Jan-2016.
- 6. Indigenously developed Casting Apparatus and Bracing For the Correction of Genu Varum and Genu Valgum Deformities: Orthotic and Prosthetic Association of India (OPAI) conference Ian-2009

Research paper publications

- Orthotic management of Idiopathic Scoliosis by Milwaukee brace-A case study; JOPAI ,Issue 2, June 2014
- 2. Comparative analysis between Rotationplasty Prosthesis made with foot in Full Plantar Flexion and Foot in 10 degrees short of Full Plantar Flexion; JOPAI, Issue 3, December 2019
- 3. Prosthetic Fitment Outcomes in Patient with Rotationplasty- A Case Series; International Journal of Healthcare & Biomedical Research, Volume 8, Issue 3, April 2020
- 4. Cost effective Transradial Assistive Prosthetic Hand; International Journal of Science and Research(IJSR), Volume 9, Issue 9, September 2020
- Anatomical Motion Knee Joint A new Design Concept of Prosthetic Knee Joint for Knee Disarticulation (KD) Amputation; IOSR Journal of Research & Method in Education (IOSR-JRME), Volume 10, Issue 5, Series 6 (Sept-Oct. 2020)
- 6. Dynamic Torticollis Orthosis A new Design Concept of Cervical Orthosis for Children with Torticollis; IOSR Journal of Dental and Medical Sciences (IOSR-JDMS), Volume 19, Issue11, Series 2 (November-2020)
- Non-Invasive Pin-less halo Orthosis; International Journal of Novel Research and Development, Volume 7 issue 1, Jan 2022
- 8. Dynamic Progressive Orthosis for Elbow Flexion Contracture; International Journal of Novel Research and Development, Volume7 issue 1, Jan 2022
- 9. Comparative Analysis of Solid AFO vis-à-vis Articulated AFO using flexible ankle hinges in Children with Cerebral Palsy Spastic Diplegia with age group 5-12 years in terms of Gait Parameters; International Journal of Health Science and Research, Vol.12; Issue 2; Feb 2022
- 10. Ambulating the 'Different': A Prosthetic Approach towards Conservative Management of Congenital Anomalies, Volume7 issue 2, Feb 2022

Patent

- 1. "DUAL MODE WHEELCHAIR FOR LOCOMOTER DISABLED PEOPLE" (CBR No. 26672)
- 2. "TRANSTIBIAL PROSTHESIS WITH PROVISION FOR SQUATTING" (CBR NO. 22028)
- 3. "ANATOMICAL MOTION PROSTHETIC KNEE JOINT (AMPKJ)" (CBR NO. 26522)
- 4. "PROSTHETIC DESIGN FOR ROTATIONPLASTY" (CBR NO. 747)

Awards Felicitated

- Best Screening Device Research- Award at 5th MEDIC-2019, IIT Bombay
- Outstanding performance in MPO exam Award by Dr.S.Venketesh Director General of Health Sciences (DGHS), Govt. of India
- Outstanding Dissertation in MPO by AIIPMR society for Promotion of Medical Research
- Dyana Award for Outstanding Academic performance in MPO by Mr. Surendran, Director, DYANA
- POCL Award for best MPO student by Dr.Mukesh Doshi, Director, POCL
- Teacher Innovation Award by Zero-Investment Innovations for Education Initiatives ZIIEI Innovations
- Certificate of completion for Participating in the I-NUBATE program conducted by IIT Madras
- Jury panel member at 4th Medical Device Innovation Camp at IIT Bombay

PERSONAL DETAILS

Gender: Male | Marital Status: Married | Languages: English, Hindi and Marathi

References:

Dr. MAHESH CHOUDHARI, M.D. ORTHO, PMR specialist, AIIPMR, MUMBAI. (+91 9920083839; drmahichoudhary@gmail.com)

Mr. ASHOK INDALKAR, HOD (P&O), AIIPMR, MUMBAI . (+91 9167460882; agindalkar@gmail.com)

Dr. RUPESH GHYAR, Sr. Research Scientist, BETiC, OrthoCAD Lab, IIT Bombay. (+91 9970642575;rupesh.ghyar@betic.org)

