Curriculum Vitae

Revised on May 2023; pp. 1-28

Name: **Arti Parganiha**

Date of birth: **31.07.1968**

Birth place: **Raipur (Chhattisgarh, India)**

Designation **Professor (Bioscience)**

Marital status: Married; Blessed with a daughter and a son

Address:

Office: Chronobiology and Animal Behavior Laboratory,
School of Studies in Life Science,
Pandit Ravishankar Shukla University,
Raipur – 492 010, India
Phone: 91-771-2262631 (O); 91-9826551089 (M)
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Residence: Qr. No. R-8, Teachers Colony,
Pt. Ravishankar Shukla University Campus,
Raipur - 492 010, India
Mobile: 91-9826551089

Education

1. High School Certificate, Board of Secondary Education, Madhya Pradesh, 1984
2. B.Sc., Pt. Ravishankar Shukla University, 1988, Biology
3. M.Sc., Pt. Ravishankar Shukla University, 1990, Zoology (Entomology), (7^{th} in merit)
4. P.G. Diploma in Sericulture, Pt. Ravishankar Shukla University, 1991, Sericulture, (2^{nd} in merit)
5. Ph.D., Pt. Ravishankar Shukla University, 1998, Bioscience (Sub area: Chronobiology)

   Thesis Title: "Shift work: Health, physiologic and psychosocial aspects"

   Place of research work: School of Studies in Life Science,
   Pt. Ravishankar Shukla University,
   Raipur-492 010, India

   Ph. D. Supervisor: Prof. Atanu Kumar Pati, *FNASc, FNAMS (India)*
   School of Studies in Life Science,
   Pandit Ravishankar Shukla University,
   Raipur-492 010, India

Experience:

Professional:

a)	Pre-doctoral work:	1993-1998
b)	Post-doctoral work:	1998- 2003
	i) Part-time Research Associate (UGC):	May 1999 - May 2001
	ii) Research Associate (CSIR):	June 2001 - October 2002
	iii) Young Scientist (DST-sponsored project):	November 2002 - October 2005
c)	Lecturer, Pt. Ravishankar Shukla University	September 2003 - September 2007
d)	Senior Lecturer (Assistant Professor), Pt. Ravishankar Shukla University	September 2007 - November 2012
e)	Associate Professor, Pt. Ravishankar Shukla University	November 2012 – November 2015
f)	**Professor, Pt. Ravishankar Shukla University**	From November 2015

Academic:

1. Member, BoS in Microbiology, PRSU, Raipur, 2008-2011
2. Member, BoS in Zoology, Govt. P.G. Chhattisgarh College, Raipur, 2008-2010
3. Member, BoS in Bioscience, PRSU, Raipur, 2011-2014
4. Subject Expert, BoS in Zoology, Govt. Digvijay Autonomous College, Rajnandgaon, 2013-2015
5. Member-Secretary, Departmental Research Committee, School of Life Sciences, PRSU, Raipur, 2013-2016
6. Member, BoS in Bioscience, PRSU, Raipur, 2014-Present
7. External Member, Institutional Ethics Committee, Govt. Girls DBPG Girls College, Raipur, 2016 - Present
8. Subject Expert, BoS in Zoology, Govt. Nagarjuna PG Science College, Raipur, 2016-2019
9. Subject Expert, BoS in Zoology, Govt. Digvijay Autonomous College, Rajnandgaon, 2017-2020
10. Members, Central BoS in Bioscience, Higher Education, Chhattisgarh, 2018-Present
11. Member Secretary, Institutional Ethics Committee for Human Research, Pt. Ravishankar Shukla University, Raipur, from January 2020 - Present
12. External Member, Research Degree Committee, Hemchand Yadav University, Durg, from January 2021 - Present
13 Member, Academic Council, Pt. Ravishankar Shukla University, Raipur, 2023

Administrative:

1. Member, Teachers Benevolent Fund, PRSU, Raipur, 2003-2006
2. Assistant Superintendent, Annual Examination, 3rd Shift, 2009
3. Member, Steering Committee, NAAC, 2010
4. Member, Advisory Committee, IQAC, PRSU, 2012 - Present
5. Member-Secretary, Staff Council, School of Life Sciences, PRSU, Raipur, 2013-2016
6. Member, Selection Committee, Appointment of Assistant Professor under 28-statute, 2013
7. Member (University Nominee), IQAC, Pt. Harishankar Shukla Smriti College, Raipur, 2013 - Present

8. Member, Examination Committee (VC Nominee), PRSU, Raipur, 2014 - 2016
9. Warden, PG Girls Hostel, PRSU, Raipur, March 2016 - Present
10. Member, IQAC, Gurukul Mahila Mahavidyalaya, Raipur, 2017 - Present
11. Member, Central Anti-Ragging Committee, PRSU, Raipur, 2018 - Present
12. Member, Discipline Committee, PRSU, Raipur, 2018-Present
13. Member, Examination Committee (VC Nominee), PRSU, Raipur, 2018 - 2019
14. Coordinator, preparation of SSR, PRSU, 2021
15. Executive Director, IQAC, PRSU, 2022
16. Director, IQAC, PRSU, From November 2022

Editorial responsibility:

1. Editor, Newsletter, Indian Society for Chronobiology, 2004-2012
2. Editor, Journal of Ravishankar University, Part B (Science) from September 2010 - Present
3. Editor-in-Chief, Magazine, Life Science Alumni Association, from 2014
4. Editor, Biological Rhythm Research, from April 2023

Reviewer:

1. Referee, Journal – Advances in Applied Research, Coimbatore, February 2010 - Present
2. Journals –Current Psychiatry Reviews, Tumor Biology, Journal of Health and Pollution, Health and Quality of Life Outcomes, Chronobiology International, Erciyes Medical Journal, Animal Biology, Biological Rhythm Research, Cancer Medicine, Contemporary Nurse, Frontiers in Physiology – special section Chronobiology, Plos One
3. Ph.D. thesis – **National:** Ranchi University, Guru Ghasidas University, Barkatullah Vishwavidhyalaya Bhopal, Jamia Millia Islamia, Gangadhar Meher University, Savitribai Phule Pune University **International:** Università degli Studi di Milano, Milan, Italy

Teaching Experience:

PG Teaching:	**05 years in the capacity of *Ad hoc* Lecturer/ RA/ PI** (1998 – 2003) **19+ years as permanent faculty** (2003 – onwards)
Animal Physiology	M.Sc. Bioscience
Chronobiology (Special Paper)	M.Sc. Bioscience
Biometry, Computer and Scientometry	M.Sc. Bioscience, M.Sc. Microbiology, M.Sc. Biochemistry M.Sc. Biotechnology (Till 2004, New department created)
Invertebrate/ Vertebrate Zoology	5-Year Integrated Course Bioscience/ Microbiology/ Biotechnology/ Chemistry
Research Methodology, Data Analyses & Computer Application	M.Phil. (2007-2014, M.Phil. program continued till 2014)
Research Methodology, Data Analyses & Computer Application	Ph.D. Course Work (Started from 2011)

Honour

1. Chairperson, Scientific Session A, XIX National Symposium on Chronobiology, Madurai Kamaraj University, Madurai, 2007
2. Chairperson, Scientific Session IX, XXI National Symposium on Chronobiology, Jamshedpur Cooperative College, Jamshedpur, 2010
3. Member, National Coordination Committee, International Congress on Chronobiology, ICC 2012, University of Delhi, New Delhi, 2012
4. Chairperson, Poster Session, International Congress on Chronobiology, ICC 2012, University of Delhi, New Delhi, 2012
5. Chairperson, Scientific Session IX, II National Conference on Recent Advances in Biological Sciences, Pt. Ravishankar Shukla University, Raipur, 2013
6. Chairperson, Scientific Session IX, XXV National Symposium on Chronobiology - *Time in Biology & Medicine*, Pt. Ravishankar Shukla University, Raipur, 2015
7. Chairperson, Scientific Session W5: Daily rhythms in modern society II, IndoUS Workshop cum International Symposium on Biological Timing and Health Issues in the 21st Century, University of Delhi, Delhi, February 21-24, 2017
8. Vice-President (Elected), Indian Society for Chronobiology, 2017-2019
9. Chairperson, Symposium 'Shift Work', 30th Conference of the International Society for Chronobiology, University of Warsaw, Warsaw, Poland, July 2-5, 2019

Awards/ Prizes/ Scholarships/ Fellowships/ Associateships:

(A) Awards:

1. ***ISCA* Young Scientist Award**
   Chandrawanshi, A. (2001). Circadian rhythm resynchronization in shift workers. *Proc. 88th Ind. Sc. Cong.* (Y.S. Abstract), January 3-7, IARI, New Delhi, p. 87.
2. **Young Scientist Award**
   Chandrawanshi, A. and Pati, A.K. (1994). Ventilatory functions in shift workers. Proc. Nat. Sci. Day, February 27-28, Pt. Ravishankar Shukla University, Raipur.
   The oral presentation bagged 2nd prize in the Young Scientist competitive session in National Science Day.
3. **Young Scientist Award**
   Chandrawanshi, A. (1995). Responses of human circadian oscillators to shift work. *Proc. Nat. Sci. Day*, February 27-28, Pt. Ravishankar Shukla University, Raipur, p. 1.
   The oral presentation bagged consolation prize in the Young Scientist competitive session in National Science Day.
4. **Associate Professor of the year [2014-2015],** Pt. Ravishankar Shukla University, Raipur.

(B) Scholarships/ Associateships:

Indian:

1. Young Scientist, under FAST Track Scheme, Department of Science and Technology, New Delhi (No. SR/FTP/LS-A-15/2001 dated 12.9.2002).
2. Research Associateship, Council of Scientific and Industrial Research, New Delhi (**RA,** No. 9/266(57)/2001-EMR-I; dated 22.03.2001).
3. Part-time Research Associateship, University Grants Commission, New Delhi (**PTRA**, No. 15-130/98(PTRAWLS/SA-I; dated 31.3.1999).
4. Senior Research Fellowship, Council of Scientific and Industrial Research, New Delhi (**SRF**, No. 9/266(43)/94-EMR-I; dated 16.8.1994).

5. Junior Research Fellowship, Pt. Ravishankar Shukla University, Raipur (**JRF**, No. 3606/F/SRS/92; dated 8.2.1993).

***Foreign*:**

1. **Post Doctoral Fellowship,** Université Paris-SUD-XI, Paris, France, 2006-2007

(C) Fellowships:

1. **The Fellow of the Indian Society of Chronomedicine, Year of election: 2017**

Professional Society Membership:

***National*:**

1. Indian Society for Chronobiology, Life member, 1994
2. Executive member, Indian Society for Chronobiology, 2000 – 2004; 2012 – 2017
3. Ethological Society of India, Annual member, 1996 – 1997; Life Member from 2017
4. Alumni Association of School of Life Sciences, PRSU, Raipur, Life member
5. Indian Society for Comparative Endocrinology, Life member, 2006
6. Zoological Society of Chhattisgarh, Life member, 2005
7. Indian Society for Chronomedicine, Life member, from October 2015
8. Executive member, Ethological Society of India, from March 2020

***International*:**

1. Member of the International Project on the BIOsphere and the COSmos (BIOCOS), Since April 2005
2. Member of the International Society of Biospeleology, Since November 2004
3. International Society for Chronobiology (Annual member), 2007-08
4. International Association for Research on Time in Biology and Chronotherapy (ARTBC International), Paris, France from 2007 - 2015

Guidance Experience:

Ph.D. guided: 10*; Current Ph.D. Students Working: 4
*Includes 3 Co-guidance

Ph.D. Thesis (with year of Award):

1. Ms. Nishtha Vaidya (2012). Circadian heart rate and blood pressure variability in apparently healthy subjects using ABPM.
2. Ms. Saba Taj (2013). Studies on circadian rhythm in rest-activity and energy expenditure in cancer patients.
3. *Ms. Arati Singh (2015). Foraging and nest-building behavior of Indian cliff swallow, *Hirundo fluvicola* (Blyth, 1855).
4. *Ms. Shrutika Kankariya (2015). The ecology and behavior of Indian swift, *Apus affinis* (Gray, 1830).
5. Mr. Armiya Sultan (2018). Effect of hospitalization on circadian rhythms, sleep parameters and quality of life (QoL) in female breast cancer patients: a follow-up study.
6. Ms. Shikha Malik (2021). Evaluation of the impact of electromagnetic radiation emitted from mobile phone on phototactic behaviour of zebrafish and Indian walking catfish.
7. Ms. Pratibha Kujur (2021). Effects of social interaction on locomotor activity rhythm in catfish, *Heteropneustes fossilis*.

8. *Mr. Bhupendra Kumar Sahu (2021). Wandering and foraging behavior of street cattle around urban Raipur, Chhattisgarh.
9. Ms. Priyanka Chandel (2021). Effects of low frequency electromagnetic radiation emitted from mobile towers on rest-activity cycle, attention related cognitive ability and sleep quality in humans.
10. Ms. Noorshama Parveen (2023). Circadian rest-activity rhythm in subjects with obstructive sleep apnea.

*Co-Guide

M.Phil. Dissertation (with year of Award):

1. Ms. Nivedita Xalxo (2009). Effect of thyroxine (T_4) hormone on surfacing activity of *Clarias batrachus*.
2. Ms. Pratibha Kujur (2010). Circadian rhythms in core body temperature and short-interval time estimations in humans.
3. Mr. Armiya Sultan (2011). Temporal profiles in physical activity & energy expenditure in cancer patients.
4. Ms. Poonam Singh (2012). Sleep behaviour in shift-working paramilitary personnel.
5. Ms. Noorshama Parveen (2013). Intelligence quotient and short interval time estimation in adolescents.
6. Ms. Priyanka Chandel (2014). Validation of Hindi Version of Multidimensional Fatigue Inventory (MFI) and Hospital Anxiety and Depression Scale (HADS) in Cancer Patients.

Note: M.Phil. program of the School of Life Sciences resumed from 2007

M.Sc. Dissertation:

1. Mr. Subodh Kumar Tiwari (2005). Circadian technology in human health and disease: Utility of autorhythmometry and wrist-actigraphy.
2. Ms. Nishtha Vaidya (2006). Circadian rhythm in rest-activity and long-term time estimation in apparently healthy male subjects.
3. Ms. Gunjan Sharma (2007). Circadian variability in blood pressure and heart rate in apparently healthy human subjects.
4. Ms. Saba Taj (2008). Circadian variations in lipid profile in a cohort of eight human subjects in constant routine.
5. Ms. Rashmi Dewangan (2008). Effects of starvation and light intensity on phototactic behaviour of Indian catfish, *Clarias batrachus*.
6. Ms. Veena Shrivas (2010). Study of temporal profiles of energy expenditure and physical activity in obese male subjects.
7. Ms. Bharti Ukey (2011). Rhythmic organization in catfish (Review).
8. Ms. Neha Shukla (2011). Cancer chronotherapy (Review).
9. Ms. Richa Pathak (2020). Multi-frequency rhythms in the pattern of online usage of Twitter during the COVID-19 pandemic.

Note: Introduced in M.Sc. curricula of the School of Life Sciences from 2004

Integrated M.Sc. Dissertation:

1. Ms. PL Manasa (2021). To study activity level, energy expenditure and meal pattern in female university students as a function of body mass index. Center for Basic Sciences, PRSU

2. Ms. Geetanjali Thakur (2021). Sleep-wake pattern and meal frequency of young aged rural and urban inhabitants before and during covid-19 pandemic: a cross-sectional study from Chhattisgarh, India. Center for Basic Sciences, PRSU
3. Ms. Veena Sahu (2021). Assessment of rest-activity rhythm and sleep-wake pattern in young age group female university students. Center for Basic Sciences, PRSU

Grant Support:

1. ***Project 1***: Circadian time structure of shift workers as a function of chronotype; Funding agency: DST, New Delhi, (Under SERC Fast Track Proposals for Young Scientists 2001-2002), 2002-2005. INR 11.95 Lakh
2. ***Project 2***: Study of rest-activity circadian rhythm in cancer patients: An attempt to develop strategies for chronotherapy and QoL. Funding agency: UGC, New Delhi, (Major Research Project), 2009-2012. INR 9.15 Lakh
3. [*]***Project 3***: Study of circadian rhythm in the cognitive ability to judge short-interval durations in humans and the effect of light at night (LAN). Funding agency: DST, New Delhi, (under the scheme Cognitive Science Research Initiative (CSI), 2010-2013. INR 31.20 Lakh, PI: AK Pati
4. [**]***Project 4***: Human shift work and biological clock in patients. Funding agency: UGC, New Delhi, (DRS Phase II under the Special Assistance Program - SAP), 2010-2015, Thrust area – Chronobiology. INR 70.098 Lakh
5. ***Project 5***: Salivary alpha-amylase and rest-activity rhythms in patients with breast cancer. Funding agency: CCOST, Raipur, (Minor Research Project), 2014-2017. INR 5.0 Lakh
6. [**]***Project 6***: Biological clock in humans and animals. Funding agency: UGC, New Delhi, (DRS Phase III under the Special Assistance Program - SAP), 2016-2021, Thrust area – Chronobiology. INR 125.0 Lakh
7. [*]***Project 7***: Inventory on earthworm biodiversity database of Raipur district of Chhattisgarh agro-ecosystems cultivating scented rice. Funding agency: CCOST, Raipur, (Minor Research Project), 2014-2019. INR 4.9 Lakh PI: AK Pati
8. [*]***Project 8***: Alterations in circadian rhythmicity of heart rate variability and activity cycle in asthmatic patients & its implications. Funding agency: AIIMS, Raipur, 2018-2019. INR 4.95 Lakh PI: M Sinha
9. [*]***Project 8***: Correlation of circadian rhythmicities of Melatonin with Heart Rate Variability in Bronchial Asthma & its clinical Implication. Funding agency: AIIMS, Raipur, 2019-2020. INR 5.00 Lakh PI: M Sinha

[*]Co-PI; [**]One of the faculty members in thrust area

Symposia/ Workshop Organized:

1. National Symposium on Biodiversity: Current Status and Prospects, October 17-18, 2005. (Member in organizing committee).
2. Trends & Techniques in Chronobiology: A Workshop, March 20-25, 2006. (Organizing Secretary).
3. XX National Symposium on Chronobiology, December 27-29, 2008. (Organizing secretary)
4. National Conference on Advances in Biological Sciences, November 5-7, 2011 (Organizing Secretary)
5. Special Winter School on Innovation in Teaching and Research, December 1-21, 2013 (Course Coordinator)
6. National Workshop on Trends & Techniques in Chronobiology, January 6-12, 2014 (Organizing Secretary)
7. Workshop on h-Index, i10-Index and Citations, August 22-23, 2014 (Organizing Secretary)
8. XXV National Symposium on Chronobiology – *Time in Biology and Medicine*, March 27-29, 2015 (Organizing Secretary)

9. 3rd National Workshop on Trends & Techniques in Chronobiology, March 21-27, 2017 (Organizing Secretary)
10. 4th National Workshop on Trends & Techniques in Chronobiology, March 10-16, 2018 (Organizing Secretary)
11. 5th National Workshop on Trends & Techniques in Chronobiology, March 2-8, 2019 (Organizing Secretary)
12. Refresher Course in Life Science, December 3-16, 2019 (Course Coordinator)
13. 6th National Workshop on Trends & Techniques in Chronobiology, March 21-27, 2023 (Organizing Secretary)

Publication Summary:

a)	Review:	08*
b)	Papers Published in Refereed Foreign Journals:	46
c)	Papers Published in Refereed Indian Journals:	13
d)	Papers published in Proceedings:	05
e)	Book Chapter:	01
f)	Mini Review:	02
g)	Report:	02
	Total publications:	**69**
h)	Papers presented in Symposia/Conferences/Workshops:	212** (National: 157; International: 55)

*Shown under respective category and not added in the total; **not added in the total

Travel Support:

To attend **25th Conference of the International Society for Chronobiology**, Antalya, Turkey, October 9-13, 2001, Tour sponsored by Council of Scientific and Industrial Research, New Delhi (Could not attend the Conference).

To attend the **First International Congress of Applied Chronobiology and Chronomedicine**. Antalya, Turkey, June 1-6, 2005. Tour sponsored by University Grants Commission and Chhattisgarh Council of Science & Technology, Raipur.

To attend the **18th International Symposium of Biospeleology**. Cluj-Napoca, Romania, July 10-15, 2006, Tour sponsored by Council of Scientific and Industrial Research, New Delhi and Department of Science & Technology, New Delhi.

To attend the **8th World Congress of Psycho-Oncology**. Ferrara-Venice, Italy, October 16-21, 2006, Tour sponsored by Université Paris-SUD-XI, Paris, France.

To attend the **Second International Congress of Applied Chronobiology and Chronomedicine**, Tunis, Tunisia, March 23-28, 2007, Tour sponsored by Université Paris-SUD-XI, Paris, France.

To attend the **PROUST Conference (Genes at work on time)**, Torino (Turin), Italy, October 15-18, 2008, Tour sponsored by the Organizers of PROUST Conference.

To attend the **Third International Congress of Applied Chronobiology and Chronomedicine**, Akko, Israel, May 17-22, 2009, Tour sponsored by University Grants Commission and Chhattisgarh Council of Science & Technology, Raipur.

To attend the **30th Conference of the International Society for Chronobiology**, Warsaw, Poland, July 2-5, 2019, Tour sponsored by Department of Science & Technology, New Delhi and University Grants Commission.

Areas of Interest:

Applied Chronobiology: Shift-work optimization, Cancer Chronotherapy, BP variability, Cognitive Science; Chronotype; Animal Behaviour; Effects of Electromagnetic Radiation

Countries Visited:

Turkey, Romania, France, Italy, Tunisia, Israel, Poland

List of Publications of Parganiha (Chandrawanshi) Arti

Review Articles:

1. Pati, A.K., **Chandrawanshi, A.** and Reinberg, A. (2001). Shift work: Consequences and management. *Current Science*, **81** (1), 32-52. Indian Academy of Sciences, Bangalore. (JIF = 1.102)
2. Pati, A.K. and **Parganiha, A.** (2005). Shift work: Circadian rhythm disruption and beyond. *Proc. Indian Natn. Sci. Acad.* (*PINSA*), **B71,** 229-255. (JIF = 0.96)
3. Kujur, P. and **Parganiha, A.** (2013). Social interaction in fish: A brief review. *Journal of Ravishankar University-B*, **24-26,** 26-34. (Indexed in EBSCO)
4. Senapati, B.K., **Parganiha, A.**, Pati, A.K. and Panigrahi, P.K. (2015). Sustainable management of agriculture with low entropy strategy: apropos earthworm. *Journal of Ravishankar University-B*, **28,** 1-10. (Indexed in EBSCO)
5. Sultan, A., Choudhary, V. and **Parganiha, A.** (2017). Monitoring of rest-activity rhythm in cancer patients paves the way for the adoption of patient-specific chronotherapeutic approach. *Biological Rhythm Research*, 48, 189-205 (JIF = 1.362)
6. Sultan, A., **Parganiha, A.,** Sultan, T., Choudhary, V and Pati, A.K. (2017). Circadian clock, cell cycle and breast cancer: an updated review. *Biological Rhythm Research*, 48, 353-369 (JIF = 1.362)
7. Sahu, B.K., **Parganiha, A.** and Pati, A.K. (2020). Behavior and Foraging Ecology of Cattle: A Review. *Journal of Veterinary Behavior*, 40, 50-74. DOI: 10.1016/j.jveb.2020.08.004. (JIF = 2.172)
8. Parveen, N. and **Parganiha, A.** (2022). Consequences and factors associated with OSA: a brief review. *Biological Rhythm Research*, DOI: https://doi.org/10.1080/09291016.2022.2054558 (JIF = 1.362)

Papers Published in Refereed Foreign Journals:

1. **Chandrawanshi, A.** and Pati, A.K. (1996). Impairment of peak expiratory flow rate in shift workers. *International Journal of Industrial Ergonomics*, **17**, 431-435. (JIF = 2.884)
2. Gangopadhyay, A., **Chandrawanshi, A.** and Pati, A.K. (1998). Assessment of pulmonary function in young and elderly shift workers of a steel plant. *Biological Rhythm Research*, **29** (3), 272-285. (JIF = 1.362)
3. **Chandrawanshi, A.** and Pati, A.K. (2000). Could externally desynchronized circadian rhythm be resynchronized in shift workers? *Biological Rhythm Research*, **31** (2), 160-176. (JIF = 1.362)
4. Pati, A.K. and **Chandrawanshi, A.** (2001). Assessment of anxiety level and mental health status in spouses and children of day-working and shift-working men. *Biological Rhythm Research*, **32** (1), 45-59. (JIF = 1.362)
5. Pati, A.K., **Parganiha, A.**, Kar, A., Soni, R., Roy, S. and Choudhary, V. (2006). Implications of the study of rest-activity circadian rhythm in head and neck cancer patients. *Biological Rhythm Research*, **37,** 497-505. (JIF = 1.362)
6. Pati, A.K., **Parganiha, A.**, Kar, A., Soni, R., Roy, S. and Choudhary, V. (2007). Alterations in the circadian characteristics of rest-activity rhythm in cancer patients appear to be independent of gender and site of cancers. *Chronobiology International*, **24,** 1179-1197. (JIF = 3.749)
7. Sultana, R., Vaidya, N., **Parganiha, A.** and Pati, A.K. (2008). Dichotomy in human population based on variability in peak spread of rest-activity rhythm in respect of internal phase reference point. *Biological Rhythm Research*, **39,** 109-121. (JIF = 1.362)
8. Soni, R., Dubey, P., Kar, A., **Parganiha, A.**, Pradhan, R.K. and Pati, A.K. (2008). Permanent night work alters characteristics of circadian rhythm of rest-activity in human subjects. *Biological Rhythm Research*, **39,** 481-492. (JIF = 1.362)

9. Pande. B., Rathod, G., Vaidya, N., Nag, C., **Parganiha, A.** and Pati, A.K. (2012). Non-auditory effect of community noise on interval timing in humans: an exploration. *Biological Rhythm Research*, 43, 585-601. (JIF = 1.362)

10. Achari, K.V., Pati, A.K. and **Parganiha, A.** (2012). Comparison of distributions of morningness-eveningness among populations of shift workers on varied work patterns in different organizations. *Biological Rhythm Research*, 43, 235-248. (JIF = 1.362)

11. Vaidya, N., Pati, A.K. and **Parganiha, A.** (2012). Circadian variability and nocturnal dipping pattern in blood pressure in young normotensive subjects. *Biological Rhythm Research*, 43, 485-496. (JIF = 1.362)

12. Taj, S., Choudhary, V. and **Parganiha, A.** (2013). Temporal profiles of physical activity and energy expenditure in cancer in-patients. *Biological Rhythm Research*, 44, 219-235. (JIF = 1.362)

13. Pande, B., Shindey, R.D., **Parganiha, A.** and Pati, A.K. (2013). Interval timing as function of methods of estimation - a study on cohorts of young Indians. *Biological Rhythm Research*, 44, 469-483. (JIF = 1.362)

14. Lévi, F., Dugué, P.-A., Innominato, P., Karaboué, A., Dispersyn, G., **Parganiha, A.**, Giacchetti, S., Moreau, T., Focan, C., Waterhouse, J. and Spiegel, D. on behalf of the ARTBC Chronotherapy Group. (2014). Wrist actimetry circadian rhythm as a robust predictor of colorectal cancer patients survival. *Chronobiology International*, 31, 891-900. (JIF = 3.749)

15. Sultan, A., Choudhary, V. and **Parganiha, A.** (2014). Characteristics of circadian rhythms in rest-activity and energy expenditure in cancer in-patients. *South Asian Journal of Experimental Biology*, 4(6), 327-335. (Indexed in CABI, Copernicus, Thomson Reuters - Zoological Records)

16. Singh, A., Kankariya, S., Pati, A.K. and **Parganiha, A.** (2015). Day length and evening temperature predict circannual variation in activity duration of the colony of the Indian cliff swallow, *Hirundo fluvicola*. *Biological Rhythm Research*, 46, 69-79. (JIF = 1.362)

17. Chandel, P., Sultan, A., Khan, K.A., Choudhary, V. and **Parganiha, A.** (2015). Validation of the Hindi version of the Multidimensional Fatigue Inventory-20 (MFI-20) in Indian cancer patients. *Supportive Care in Cancer*, 23 (10), 2957-2964. DOI: 10.1007/s00520-015-2661-5 (JIF = 3.359)

18. Natale, V., Innominato, P.F., Boreggiani, M., Tonetti, L, Filardi, M., **Parganiha, A.**, Fabbri, M., Martoni, M. and Lévi, F. (2015). The difference between in bed and out of bed activity as a behavioral marker of cancer patients: a comparative actigraphic study. *Chronobiology International*, 32, 925-933. (JIF: 3.749)

19. Sultan, A., Choudhary, V. and **Parganiha, A.** (2017). Monitoring of rest-activity rhythm in cancer patients paves the way for the adoption of patient-specific chronotherapeutic approach. *Biological Rhythm Research*, 48, 189-205 (JIF = 1.362)

20. Sultan, A., **Parganiha, A.,** Sultan, T., Choudhary, V and Pati, A.K. (2017). Circadian clock, cell cycle and breast cancer: an updated review. *Biological Rhythm Research*. 48, 353-369 (JIF = 1.362)

21. Sultan, A., Choudhary, V. and **Parganiha, A.** (2017). Worsening of rest-activity circadian rhythm and quality of life in female breast cancer patients along progression of chemotherapy cycles. *Chronobiology International*, 34, 609-623. (JIF: 3.749)

22. Sultan, A., Pati, A.K., Choudhary, V. and **Parganiha, A.** (2018). Circadian rhythm characteristics of salivary alpha-amylase – a potential stress marker, in breast cancer in- and out-patients: a follow-up study. *Biological Rhythm Research*. 49, 680-696 (JIF = 1.362)

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47. *Kankariya, S., **Parganiha, A.** and Pati, A.K. (2010). Roosting behaviour of Indian swift, *Apus affinis* in relation to environmental factors. XXI National Symposium on Chronobiology. February 2-4, Jamshedpur Co-Operative College, Jamshedpur, p. 64.

48. *Pande, B., Pati, A.K. and **Parganiha, A.** (2010). Circadian and seasonal variation in manifestation of biological stopwatch for 60-s interval. The National Academy of Sciences, India, 80th Annual Session and National Symposium on Climate Change – Research, Awareness and Capacity Building: Biological Sciences, Jaipur National University, Jaipur, December 2-4, p. 26.

49. *Vaidya, N., Pati, A.K. and **Parganiha, A.** (2010). Ambulatory blood pressure monitoring: An essential tool for assessment of day-night blood pressure variations among young normotensive subjects. The National Academy of Sciences, India, 80th Annual Session and National Symposium on Climate Change – Research, Awareness and Capacity Building: Biological Sciences, Jaipur National University, Jaipur, December 2-4, pp. 26-27.

50. *Taj, S., Choudhary, V. and **Parganiha, A.** (2010). Effects of age and addictive habits on quality of life (QoL) of cancer patients. The National Academy of Sciences, India, 80th Annual Session and National Symposium on Climate Change – Research, Awareness and Capacity Building: Biological Sciences, Jaipur National University, Jaipur, December 2-4, p. 27.

51. *Pande, B., Rathod, G., **Parganiha, A.,** Vaidya, N., Nag, C. and Pati, A.K. (2011). Non-auditory effect of noise on human interval timing. XXII National Symposium on Chronobiology. March 15-17, Kurukshetra University, Kurukshetra, p. 21.

52. *Taj, S., Choudhary, V. and **Parganiha, A.** (2011). Temporal profiles in physical activity and energy expenditure, and quality of life of cancer patients. XXII National Symposium on Chronobiology. March 15-17, Kurukshetra University, Kurukshetra, p. 28.

53. *Kujur, P., Pande, B., Pati, A.K. and **Parganiha, A.** (2011). Circadian rhythms in core body temperature and short-interval time estimates in humans. XXII National Symposium on Chronobiology. March 15-17, Kurukshetra University, Kurukshetra, pp. 29-30.

54. *Pande, B., Rathod, G., Vaidya, N., Nag, C., **Parganiha, A.** and Pati, A.K. (2011). Estimation of 60-s interval under ambient noise condition in humans. National Conference on Advances in Biological Sciences. November 5-7, Pt. Ravishankar Shukla University, Raipur, p. 85.

55. *Taj, S., Chandel, P., Choudhary, V. and **Parganiha, A.** (2011). Circadian rhythm in physical activity and energy expenditure in female cancer in- and out-patients. National Conference on Advances in Biological Sciences. November 5-7, Pt. Ravishankar Shukla University, Raipur, p. 108.

56. *Vaidya, N., Pati, A.K. and **Parganiha, A.** (2011). Circadian blood pressure and heart rate variability in hypertensive human subjects. National Conference on Advances in Biological Sciences. November 5-7, Pt. Ravishankar Shukla University, Raipur, p. 115.

57. *Chandel, P, Taj, S, Choudhary, V and **Parganiha, A**. (2012). Effects of radiotherapy on circadian rest-activity rhythm and tumor size in patients with cervical cancer: A preliminary study? XXIII National Symposium on Chronobiology and Seminar on Diversity and Physiology of Desert Fauna (23rd NSC&SDPDF). March 1-3, Jai Narain Vyas University, Jodhpur, p. 23.

58. *Pande, B., Shinde, R.D., **Parganiha, A.** and Pati, A.K. (2012). Methodological differences in short-interval estimation in young humans. XXIII National Symposium on Chronobiology and Seminar on Diversity and Physiology of Desert Fauna (23rd NSC&SDPDF). March 1-3, Jai Narain Vyas University, Jodhpur, pp. 24-25.

59. *Taj, S, Chandel, P, Choudhary, V and **Parganiha, A**. (2012). Do rest-activity measures and performance status objectively indicate quality of life (QoL) of cancer patients? XXIII National Symposium on Chronobiology and Seminar on Diversity and Physiology of Desert Fauna (23rd NSC&SDPDF). March 1-3, Jai Narain Vyas University, Jodhpur, p. 25.

60. *Pande, B., **Parganiha, A.** and Pati, A.K. (2013). Short-interval time estimation accuracy as a function of gender, age and body temperature. National Seminar on 'Human Brain – A Mystery Organ', Organized jointly by Rajiv Gandhi Institute of Information Technology, Amethi and National Brain Research Center, Manesar. Rajiv Gandhi Institute of Information Technology, Amethi. August 20-21.

61. *Sultan, A. and **Parganiha, A.** (2013). Circadian rhythms in physical activity and energy expenditure in cancer patients. Regional Science Congress and 9th JK Science Congress. September 01-03, University of Kashmir (J&K), p. 313-314.

62. *Taj, S., Sultan, A., **Parganiha, A.** and Choudhary, V. (2013). Circadian rhythm in energy expenditure in cancer in- and out-patients. II National Conference on Recent Advances in Biological Sciences. November 25-27, Pt. Ravishankar Shukla University, Raipur, p. 34.

63. *Chandel, P., Choudhary, V. and **Parganiha, A.** (2013). Study of rest-activity rhythm in cervical cancer patients on chemotherapy. II National Conference on Recent Advances in Biological Sciences. November 25-27, Pt. Ravishankar Shukla University, Raipur, p. 42.

64. *Kankariya, S., Singh, A., **Parganiha**, **A.** and Pati, A.K. (2013). Different components of activity rhythm in house swift, *Apus affinis* may vary as function of day length. II National Conference on Recent Advances in Biological Sciences. November 25-27, Pt. Ravishankar Shukla University, Raipur, p. 54.

65. *Kujur, P., Pande, B. and **Parganiha**, **A.** (2013). Short-interval time estimation as function of gender, age and chronotype. II National Conference on Recent Advances in Biological Sciences. November 25-27, Pt. Ravishankar Shukla University, Raipur, p. 58.

66. *Pande, B., **Parganiha**, **A.** and Pati, A.K. (2013). Rhythm detection in short-interval time estimation (SITE) is less probable in humans under free-living conditions: Reasons are unknown. II National Conference on Recent Advances in Biological Sciences. November 25-27, Pt. Ravishankar Shukla University, Raipur, p. 65.

67. *Parveen, N., Pande, B. and **Parganiha**, **A.** (2013). Intelligence quotient and short interval time estimation in adolescents as function of socio-demographic characteristics. II National Conference on Recent Advances in Biological Sciences. November 25-27, Pt. Ravishankar Shukla University, Raipur, p. 68.

68. *Singh, A., Kankariya, S., **Parganiha**, **A.** and Pati, A.K. (2013). Circannual rhythm in activity of Indian cliff swallow, *Hirundo fluvicola*. II National Conference on Recent Advances in Biological Sciences. November 25-27, Pt. Ravishankar Shukla University, Raipur, p. 80.

69. *Sultan, A, Taj, S., Choudhary, V. and **Parganiha, A.** (2013). Circadian rhythms in energy expenditure in cancer in- and out-patients. II National Conference, Recent Advances in Biological Sciences, Pt. Ravishankar Shukla University, Raipur, November 25-27, p 34.

70. *Chandel, P., Sultan, A., Khan, K.A., Choudhary, V. and **Parganiha, A.** (2015). Validation of Hindi version of Hospital Anxiety and Depression Scale (hHADS) in Indian patients with cancer. XXV National Symposium in Chronobiology, School of Life Sciences, Pt. Ravishankar Shukla University, Raipur, March 27-29, 2015, p. 49.

71. *Kankariya, S., Singh, A., Pati, A.K. and **Parganiha, A.** (2015). Bi- and multi-modal patterns in daytime nest visitation of house swift, *Apus affinis* as function of season. XXV National Symposium in Chronobiology, School of Life Sciences, Pt. Ravishankar Shukla University, Raipur, March 27-29, 2015, p. 58.

72. *Kujur, P. and **Parganiha, A.** (2015). Locomotor activity rhythm of catfish, *Heteropneustes fossilis* housed singly versus in a group. XXV National Symposium in Chronobiology, School of Life Sciences, Pt. Ravishankar Shukla University, Raipur, March 27-29, 2015, p. 61.

73. *Pande, B., Patra, P.K., Patel, H., Pati, A.K. and **Parganiha, A.** (2015). Blood pressure and heart rate rhythms in young university students under 30-h constant routine. XXV National Symposium in Chronobiology, School of Life Sciences, Pt. Ravishankar Shukla University, Raipur, March 27-29, 2015, p. 66.

74. *Parveen, N. and **Parganiha, A.** (2015). Obstructive sleep apnea as function of demographic characteristics and chronotype: a preliminary study. XXV National Symposium in Chronobiology, School of Life Sciences, Pt. Ravishankar Shukla University, Raipur, March 27-29, 2015, p. 67.

75. *Singh, A., Kankariya, S., **Parganiha, A.** and Pati, A.K. (2015). Nest visitation rate of indian cliff swallow, *Hirundo fluvicola*, during different phases of nest construction. XXV National Symposium in Chronobiology, School of Life Sciences, Pt. Ravishankar Shukla University, Raipur, March 27-29, 2015, p. 72.

76. *Sultan, A., Chandel, P., Choudhary, V. and **Parganiha, A.** (2015). Health related quality of life (HRQoL) and sleep quality of patients with breast cancer. XXV National Symposium in Chronobiology, School of Life Sciences, Pt. Ravishankar Shukla University, Raipur, March 27-29, 2015, p. 77.

77. *Chandel, P., Sultan A., Choudhary, V. and **Parganiha A.** (2016). Validation of Hindi Version of Hospital Anxiety and Depression Scale in Cancer Patients. National Conference on Prospects in Life Sciences: Paradigm Shift in Teaching and Research in Zoological Sciences, Dept. of Zoology, Govt. Nagarjuna P.G. College of Science, Raipur, March 02-03, p. 64.

78. *Kujur, P. and **Parganiha, A.** (2016). Unpredictability in the expression of free running rhythm in locomotor activity of *Heteropneustes fossilis* housed singly or in groups with conspecifics. National Conference on Prospects in Life Sciences: Paradigm Shift in Teaching and Research in Zoological Sciences, Dept. of Zoology, Govt. Nagarjuna P.G. College of Science, Raipur, March 02-03, p. 92.

79. *Sultan, A., Choudhary, V. and **Parganiha, A.** (2016). Worsening of the rest-activity and sleep quality of breast cancer patients along progression of chemotherapy cycles, XXVI National Symposium on Chronobiology, June 2-3, 2016, Department of studies in Zoology, University of Mysore, Mysore, p. 25.

80. *Pande, B., Parveen, N., **Parganiha, A** and Pati, AK. (2016). Chronotype distribution and sleep wake quality among teenagers of the south-eastern India. XXVI National Symposium on Chronobiology, Department of Studies in Zoology, University of Mysore, Mysore, June 02-03, p. 28-29.

81. *Chandel, P., Sultan, A., Choudhary, V and **Parganiha, A.** (2016). Measurement of fatigue, anxiety and depression in cancer-out patients subjected to the first line chemotherapy pg 30 XXVI National Symposium on Chronobiology, Department of Studies in Zoology, University of Mysore, Mysore, June 02-03, p. 30-31.

82. *Kujur, P. and **Parganiha, A.** (2016). The locomotor activity rhythm of the catfish *Heteropneustes fossilis* housed in small groups with conspecifics under LD 12:12 and DD. XXVI National Symposium on Chronobiology, Department of Studies in Zoology, Universirty of Mysore, Mysore, June 02-03, p. 42.

83. *Sultan, A., Choudhary, V. and **Parganiha, A.** (2016). Circadian rhythms in rest-activity and salivary alpha amylase in breast cancer patients as function of chemotherapy cycles, 2nd World Congress on Chronomedicine, Kings George Medical University, Lucknow, October 5-6.

84. **Parganiha, A.** (2017). Progressive impairment of circadian rhythm and quality of life in breast cancer patients along successive cycles of chemotherapy. 5th Bharatiya Vigyan Sammelan (BVS 2017), Fergusson College, Pune, May 11-14.

Invited Lecture:

1. **Chandrawanshi, A.** (2002). Management of health in shift workers. *National Science Day Programme*, The Indian Science Congress Association, Kolkata, February 28.

2. **Chandrawanshi, A.** (2003). Shift work: Problems and optimization. XV National Symposium on Chronobiology. School of Life Sciences, Pt. RSU, Raipur, October 20-21, p. 16.

3. **Parganiha, A.** (2004). Strategies for effective management of shift work. XVI National Symposium on Chronobiology. Department of Biochemistry, Annamalai University, Annamalainagar, October 30-31, p. 07.

4. **Parganiha, A.** (2004). Shift work: Pros and cons. Third SERC School in Chronobiology. Sponsored by Department of Science and Technology, New Delhi, Organized by Prof. B.N. Joshi, Department of Zoology, Gulbarga University, Gulbarga, December 29, 2004 - January 7, 2005.

5. **Parganiha, A.** (2005). Implications of circadian rhythm in the optimization of human shift work. Summer Research Programme, Jawaharlal Nehru University, New Delhi, June 1, 2005.

6. **Parganiha, A.** (2005). Euchronism, allochronism and dyschronism in the evaluation of tolerance of shift workers. XVII National Symposium on Chronobiology, Department of Zoology, Banaras Hindu University, Varanasi, October 1-3, p. 14.

7. **Parganiha, A.** (2006). Chronobiological aspects of shift work. Fourth SERC School in Chronobiology, Annamalai University, Annamalainagar, Chidambaram, December 24 - January 04, 2006.
8. **Parganiha, A.** (2006). Chronobiology and shift work. Staff Development Programme on Current Trends in Pharmaceutical Analytical Techniques, Institute of Pharmacy, Pt. Ravishankar Shukla University, Raipur, February 24 - March 10.
9. **Parganiha, A.** (2006). Chronobiology and shift work. Trends & Techniques in Chronobiology: A Workshop, School of Life Sciences, Pt. Ravishankar Shukla University, Raipur, March 20-25.
10. **Parganiha, A.**, Waterhouse, J., Karaboue, A., Innominato, P., Poncet, A., Iurisci, I., Giacchetti, S., Moreau, T. and Lévi, F. (2007). Chronobiological approach to identify the best fitting cancer prognostic model for the clinics. XIX National Symposium on Chronobiology, Madurai Kamaraj University, Madurai, December 7-9, pp. 32-33.
11. **Parganiha, A.** (2007). An introduction to Costat. Refresher Course (RC-07) Exploratory Data Analyses, Pt. Ravishankar Shukla University, Raipur, December 1-21.
12. **Parganiha, A.** (2008). Demonstration of Costat software. Orientation Program (OP-01) New Paradigm Change in Higher Education in India, Pt. Ravishankar Shukla University, Raipur, January 21 – February 16.
13. **Parganiha, A.** (2010). Research funding agencies in relation to schemes & programs for women in science. One day Seminar: Women and Research, SoS in Psychology, Pt. Ravishankar Shukla University, Raipur, January 22.
14. **Parganiha, A.** (2010). Strengths and weaknesses of rest-activity rhythm as a predictor of Quality of Life (QoL) in cancer patients. XXI National Symposium on Chronobiology. Jamshedpur Co-Operative College, Jamshedpur, February 2-4, p. 4.
15. **Parganiha, A.** (2010). Challenges related to research and project work. State Level Workshop on Working Women – Social & Economic Challenges. Swami Swaroopanand Institute of Education, Bhilai, February 22.
16. **Parganiha, A.** (2010). An introduction to Costat. Orientation Program (OP-01). Pt. Ravishankar Shukla University, Raipur, July 1-29.
17. **Parganiha, A.** (2011). An introduction to Costat. Orientation Program. Pt. Ravishankar Shukla University, Raipur. January 28 – February 24.
18. **Parganiha, A.** (2011). Research funding agencies: Programs & schemes. Orientation Program. Pt. Ravishankar Shukla University, Raipur, January 28 – February 24.
19. **Parganiha, A.** (2011). Where to obtain grants? How to write a grant proposal? MGM, Eye Institute, Raipur, February 26.
20. **Parganiha, A.** (2011). Biological clock in cancer patients: Relevance to chronotherapy. XXII National Symposium on Chronobiology. Kurukshetra University, Kurukshetra, March 15-17, pp. 22-23.
21. **Parganiha, A.** (2011). Microsoft Excel: Analysis and Presentation of Data. Workshop on Applications of Technology in Plant Science. St. Thomas College, Bhilai, November 17-18.
22. **Parganiha, A.** (2012). Biological clock as a weapon against diseases. INSPIRE Internship Science Camp. Sponsored by Department of Science and Technology (DST). Organized by Columbia College of Pharmacy, Raipur, October 27-31.
23. **Parganiha, A.** (2013). Biological clock and health. INSPIRE Internship Science Camp. Sponsored by Department of Science and Technology (DST). Organized by Columbia College of Pharmacy, Raipur, April 24-28.
24. **Parganiha, A.** (2013). Utility of MS Excel ToolPak in the analysis of research data. Refresher Course - Research Methodology in Basic Science, June 1-21, Pt. Ravishankar Shukla University, Raipur.
25. **Parganiha, A.** (2013). Tips on how to use SPSS to analyze data. Refresher Course - Research Methodology in Basic Science, June 1-21, Pt. Ravishankar Shukla University, Raipur.

26. **Parganiha A.** (2013). Tips on internal quality assurance cell (IQAC). One-day Workshop on Process NAAC Accreditation and Preparation of IQAC, Govt. Digvijay Autonomous PG College, Rajnandgaon, July 5.
27. **Parganiha A.** (2013). Chronotherapy. INSPIRE Internship Science Camp. Sponsored by Department of Science and Technology (DST). Organized by Gurukul Art, Commerce & Science College, Pathalgaon, Jashpur, August 25-29.
28. **Parganiha A.** (2013). Features and utility of MS-Word. Govt. Nagarjuna Post Graduate College of Science, Raipur, September 10.
29. **Parganiha A.** (2013). Features and utility of MS-Excel. Govt. Nagarjuna Post Graduate College of Science, Raipur, September 10.
30. **Parganiha A.** (2013). Chronotherapy. Special Winter School: Innovation in Teaching and Research, December 1-21, Pt. Ravishankar Shukla University, Raipur.
31. **Parganiha A.** (2014). Chronotherapy: With special reference to cancer therapy. National Workshop: Trends & Techniques in Chronobiololy. Pt. Ravishankar Shukla University, Raipur, January 6-12.
32. **Parganiha A.** (2014). How to write & where to submit a project proposal? Refresher Course, July 12, Pt. Ravishankar Shukla University, Raipur.
33. **Parganiha, A.** (2014). Cancer chronotherapy. National Seminar on Pulsatile Drug Delivery System – A Promising Approach towards Chronobiological Disease. Organized by Columbia College of Pharmacy, Raipur, August 23-24.
34. **Parganiha, A.** (2014). Analysis of variance. Guest Lecture. Department of Biotechnology, Govt. VYTPG Autonomous College, Durg, November 5.
35. **Parganiha A.** (2014). How to write a project during OP/ RC programs? Orientation Program, November 19, Pt. Ravishankar Shukla University, Raipur.
36. **Parganiha, A.** (2014). Biological clock and health. INSPIRE Internship Science Camp. Sponsored by Department of Science and Technology (DST). Organized by Columbia College of Pharmacy, Raipur, November 24-28.
37. **Parganiha, A.** (2014). Dichotomy index - a determinant of the overall and progression free survival in cancer patients. National Seminar - Recent Advances in Biological Sciences, Govt. RD College, Wadrafnagar, November 29-30, p. 6.
38. **Parganiha, A.** and Pati, A.K. (2015). Costs and benefits of human shift optimization. National Seminar on Prospects of Life Science for Human Welfare with Special Reference to Chhattisgarh, Govt. VYTPG Autonomous College, Durg, February 7-8.
39. **Parganiha, A.** (2015). Dichotomy index – A biomarker predicting overall and progression free survival in cancer patients. XXV National Symposium on Chronobiology - Time in Biology & Medicine. Pt. Ravishankar Shukla University, Raipur, March 27-29, p. 23.
40. **Parganiha A.** (2015). Biological clocks within us. Refresher Course: Recent advances in Zoology, August 24, Pt. Ravishankar Shukla University, Raipur.
41. **Parganiha A.** (2015). Chronotherapy: With special reference to cancer therapy. Refresher Course: Recent advances in Zoology, August 24, Pt. Ravishankar Shukla University, Raipur.
42. **Parganiha A.** (2016). Validation of dichotomy index – an innovative tool that predicts overall and progression free survival in cancer patients. Prospects in Life Sciences: Paradigm Shift in Teaching and Research in Zoological Sciences. Second Chhattisgarh Congress of the Zoological Society of Chhattisgarh. Govt. Nagarjuna College of Science, Raipur, March 02-03, p. 30.
43. **Parganiha A.** (2016). Strengths and weaknesses of dichotomy index – A unique tool to gauge cancer patients outcome. 26th National Symposium on Chronobiology. Department of Zoology, University of Mysore. June 2-3, p. 14.
44. **Parganiha A.** (2016). Outputs of actigraphy. Proceedings of 62nd Annual Conference of Physiologists and Pharmacologists of India APPICON 2016. All India Institute of Medical Sciences, Patna, October 22-24, [Abstract published in Indian Journal of Physiology and Pharmacology (Supplement) Volume 60(5), p.20.]

45. **Parganiha, A.** (2016). Live Clocks: Implications in human health. INSPIRE Internship Science Camp. Sponsored by Department of Science and Technology (DST). Organized by Columbia College of Pharmacy, Raipur, December 26-30.
46. **Parganiha, A.** (2017). Chronotherapy: With special reference to cancer treatment. 3rd National Workshop: Trends & Techniques in Chronobiology, School of Life Sciences, Pt. Ravishankar Shukla University, Raipur, March 21-27.
47. **Parganiha, A.** (2017). Costs and benefits of human shift optimization. 3rd National Workshop: Trends & Techniques in Chronobiology, School of Life Sciences, Pt. Ravishankar Shukla University, Raipur, March 21-27.
48. **Parganiha, A.** (2017). Wrist actigraphy: Quantitative data acquisition and processing. 4th National Conference of Association of Physiologists of India, ASSOPICON-2017. King Georges Medical University, Lucknow, December 1-3.
49. **Parganiha, A.** (2017). Implications of properties of circadian clocks in cancer therapy. 3rd National Conference of Zoological Society of Chhattisgarh on Prospects of Innovations in Life Sciences and Socio-Economic Challenges, C.M.D. Post Graduate College, Bilaspur, December 2-3.
50. **Parganiha, A.** (2017). Utility of MS Excel ToolPak in the analysis of research data. Refresher Course on Research Methodology, Pt. Ravishankar Shukla University, Raipur, December 19.
51. **Parganiha, A.** (2018). Implications of circadian clocks for cancer therapy. Symposium on Sustainable Environment and Natural Resources. Govt. VYYPG Autonomous College, Durg, January 29-30.
52. **Parganiha, A.** (2018). Circadian clock and Nobel Prize. INSPIRE Internship Science Camp. Sponsored by Department of Science and Technology (DST). Organized by Columbia College of Pharmacy, Raipur, January 27-31.
53. **Parganiha, A.** (2018). The prospects for the use of chronotherapy in the management of human diseases: with special reference to cancer. National workshop, "Know your Biological Clocks! How to rock your health by synchronizing your circadian body clocks with rhythms of the nature?" Gangadhar Meher University, Sambalpur, Odisha, February 3-4.
54. **Parganiha, A.** (2018). Chronotherapy: With special reference to cancer treatment. 4th National Workshop: Trends & Techniques in Chronobiology. School of Life Sciences, Pt. Ravishankar Shukla University, Raipur, March 10-16.
55. **Parganiha, A.** (2018). Circadian clock and Nobel Prize. Refresher Course on Life Science, Pt. Ravishankar Shukla University, Raipur, July 10.
56. **Parganiha, A.** (2018). Implications of properties of circadian clocks in cancer therapy. INSPIRE Internship Science Camp. Sponsored by Department of Science and Technology (DST). Organized by Columbia College of Pharmacy, Raipur, October 1-5.
57. **Parganiha, A.** (2019). Cancer chronotherapy. 5th National Workshop: Trends & Techniques in Chronobiology. School of Studies in Life Sciences, Pt. Ravishankar Shukla University, Raipur, March 2-8.
58. **Parganiha, A.** (2019). Cancer chronotherapy. 6th Annual National Conference of Association of Physiologists of India (ASSOPICON 2019). Symposium on "Chrono – Medicine," J S S Medical College, Mysuru, Karnataka, September 11-14.
59. **Parganiha, A.** (2019). Circadian clock and Nobel Prize: implications for human health and welfare. INSPIRE Internship Science Camp. Sponsored by Department of Science and Technology (DST). Organized by Columbia College of Pharmacy, Raipur, November 12-16.
60. **Parganiha, A.** (2019). Tips on Internal Quality Assurance Cell (IQAC). Refresher Course in Hindi. Pt. Ravishankar Shukla University, Raipur, December 11.
61. **Parganiha, A.** (2020). Tips on Internal Quality Assurance Cell (IQAC). Orientation Program. Pt. Ravishankar Shukla University, Raipur, January 8.
62. **Parganiha, A.** (2020). Basics of cancer biology. Seminar Series on Recent Trends in Cancer, Diabetes and associated Disorders, UGC-SAP activities (2019-2020), Department of Biochemistry &

Biotechnology, Annamalai University, Annamalainagar, Chidambaram, February 24-27. UGC-SAP Visiting Fellow

63. **Parganiha, A.** (2020). Cancer chronobiology. Seminar Series on Recent Trends in Cancer, Diabetes and associated Disorders, UGC-SAP activities (2019-2020), Department of Biochemistry & Biotechnology, Annamalai University, Annamalainagar, Chidambaram, February 24-27. UGC-SAP Visiting Fellow
64. **Parganiha, A.** (2020). Shift work: consequences and management. Seminar Series on Recent Trends in Cancer, Diabetes and associated Disorders, UGC-SAP activities (2019-2020), Department of Biochemistry & Biotechnology, Annamalai University, Annamalainagar, Chidambaram, February 24-27. UGC-SAP Visiting Fellow
65. **Parganiha, A.** (2020). Cancer chronotherapy. Seminar Series on Recent Trends in Cancer, Diabetes and associated Disorders, UGC-SAP activities (2019-2020), Department of Biochemistry & Biotechnology, Annamalai University, Annamalainagar, Chidambaram, February 24-27. UGC-SAP Visiting Fellow
66. **Parganiha, A.** (2022). Actigraphy sleep-wake/ rest-activity rhythm cosinor rhythmometry. Review meeting of Odisha Center for Geriatrics and Gerontology, Gangadhar Meher University, Sambalpur, March 26.
67. **Parganiha, A.** (2022). Cancer Chronotherapy. Online Two-Week Refresher Course in Zoology. Gargi College, University of Delhi, 25 April - 09 May.
68. **Parganiha, A.** (2022). Innovative Practices for Student Support and Progression in HEI's. Internal Quality Assurance Cell, Govt. E Raghavendra Rao Postgraduate Science College, Bilaspur, June 14-15.
69. **Parganiha, A.** (2022). Registration Process for NAAC, Preparation of IIQA and SSR, and Criterion I - Curricular Aspects. One-Day Workshop on NAAC for Private Colleges, Pt. Ravishankar Shukla University, Raipur, July 5.
70. **Parganiha, A.** (2022). Actigraphy. Odisha Center for Geriatrics and Gerontology, Gangadhar Meher University, Sambalpur, July 28.
71. **Parganiha, A.** (2022). NAAC Accreditation of HEIs – Pros and Cons. Online Faculty Induction Program (Gurudakshta), Pt. Ravishankar Shukla University, Raipur, November 7.
72. **Parganiha, A.** (2022). Circadian clock, cancer, and chronotherapy. Online Multidisciplinary Refresher Course in Biological Science, Pt. Ravishankar Shukla University, Raipur, November 22.
73. **Parganiha, A.** (2022). NAAC Accreditation of HEIs. Online Refresher Course in Humanities, Pt. Ravishankar Shukla University, Raipur, December 15.

International

Oral Presentation:

1. [§]**Chandrawanshi, A.** and Pati, A.K. (2001). Circadian time structure of subjective variables in shift workers of a cement factory. 25th Conference of the International Society for Chronobiology, October 9-13, Antalya, Turkey.
2. [§]Pati, A.K. and **Chandrawanshi, A.** (2001). Distribution of morningness-eveningness and variation in behaviour of a human population of Indian sub-continent. 25th Conference of the International Society for Chronobiology, October 9-13, Antalya, Turkey.
3. [*]Pati, A.K., Agrawal, A. and **Parganiha, A.** (2004). Update on circadian timing system (CTS) in *Nemacheilus evezardi*. XVII International Symposium on Biospeleology. School of Life Sciences, Pt. RSU, Raipur, November 25-30, p. 52.
4. **Parganiha, A.** and Pati, A.K. (2005). Circadian rhythms in subjective variables of shift workers following shutdowns. First International Congress of Applied Chronobiology and Chronomedicine. Antalya, Turkey, June 1-6 p. 96.

5. Pati, A.K. and **Parganiha, A.** (2005). Sleep-wakefulness rhythm in human subjects of sub-tropical India as function of chronotype and sex. First International Congress of Applied Chronobiology and Chronomedicine. Antalya, Turkey, June 1-6 p. 108-109.
6. Pati, A.K., **Parganiha, A.,** Kar, A., Soni, R. and Choudhary, V. (2005). Sleep-wakefulness rhythm in patients with head and neck cancer. First International Congress of Applied Chronobiology and Chronomedicine. Antalya, Turkey, June 1-6 p. 108.
7. [§]Pati, A.K., **Parganiha, A.**, Pradhan, R.K., Kar, A. and Soni, R. (2005). Should we always expect disruption of biological clock in shift workers? Meeting on Civilization Diseases in the Spirit of V.I. Vernadsky, People's Friendship University of Russia, Moscow, Russia, October 10-12.
8. **Parganiha, A.**, Ramteke, A., Kar, A. and Pati, A.K. (2006). Background light intensity modulates circadian rhythm in phototactic behaviour in the cave loach, *Nemacheilus evezardi*. 18th International Symposium of Biospeleology, Cluj-Napoca, Romania, July 10-15, pp. 51-52.
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10. [*]Pati, A.K., **Parganiha, A.** and Pradhan, R.K. (2007). Circadian variability disorders gauged by ambulatory monitoring of blood pressure and heart rate among young Indians. The Second International Congress of Applied Chronobiology and Chronomedicine, Tunis, Tunisia, March 23-28, p. 96.
11. **Parganiha, A.,** Kar, A., Soni, R., Pradhan, R.K. and Pati, A.K. (2007). Assessment of Circadian rhythm in rest-activity by wrist actigraphy in shift workers. The Second International Congress of Applied Chronobiology and Chronomedicine, Tunis, Tunisia, March 23-28, p. 68.
12. [*]Kar, A., Soni, R., Roy, S., Choudhary, V., **Parganiha, A.** and Pati, A.K. (2007). Characteristics of circadian clock undergo alterations in subjects suffering from diabetes and cancer. The Second International Congress of Applied Chronobiology and Chronomedicine, Tunis, Tunisia, March 23-28, p. 93.
13. [*]Soni, R., Kar, A., Ramteke, A., Pradhan, R.K., **Parganiha, A.** and Pati, A.K. (2007). Timings of work shift and natures of work modulate phase angle of the rest-activity circadian rhythm in shift workers. The Second International Congress of Applied Chronobiology and Chronomedicine, Tunis, Tunisia, March 23-28, p. 67.
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15. [§]Pati, A.K., Soni, R., Kar, A., Pradhan, R.K. and **Parganiha, A.** (2007). Does nature of work influence sleep behaviour and circadian rhythm of rest-activity in shift workers? 18th International Symposium on Shiftwork and Working Time, Yeppoon QLD, Australia, August 27-31.
16. **Parganiha, A.,** Waterhouse, J., Karaboue, A., Innominato, P., Iurisci, I., Giacchetti, S., Moreau, T. and Lévi, F. (2007). Relation between circadian rest-activity rhythm, quality of life and survival in cancer patients. 39ème Congrès de la Société Francophone de Chronobiologie, Paris, France, September 19-21.
17. [*]Levi, F., **Parganiha, A.**, Innominato, P., Karaboue, A., Poncet, A., Moreau, T., Garufi, C., Focan, C., Coudert, B. and Bjarnason, G. (2008). Relevance of circadian coordination for the outcome of patients with advanced gastro-intestinal (GI) cancer. 44th ASCO Annual Meeting, May 30 - June 3, McCormick Place, Chicago, Illinois. (Accepted for Proceeding).
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19. [*]Pati, A.K., Kar, A., Sultana, R., Vaidya, N. and **Parganiha, A.**, (2009). Long sleepers tend to be nondippers: is it a paradox? The Third International Congress of Applied Chronobiology and Chronomedicine, Akko, Israel, May 17-22, p. 76.

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28. *Kankariya, S., Singh, A., Pati, A.K. and **Parganiha, A.** (2011). Roosting behaviour of Indian house swift, *Apus affinis* with reference to environmental factors. 3rd World Congress of Chronobiology. May 5-9, Puebla, Mexico, p. 140.

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36. *Pande, B., **Parganiha, A.**, Patra, P.K. and Pati, A.K. (2016). Temporal profiles of serum inorganic ions in young human subjects under 30-h constant routine. International Symposium on Integrative Physiology and Comparative Endocrinology (ISIPCE-2016), Department of Zoology, Institute of Science, Banaras Hindu University, Varanasi. February 12-14, P. 57.

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39. *Chandel, P., Singh, M.M., **Parganiha, A.** and Pati, A.K. (2018). Low-frequency electromagnetic radiation emitted from mobile tower deteriorates sleep and cognitive function in humans. International Conference on Frontiers in Life Sciences and Earth Sciences, Prof. Ramkrishna More Arts, Commerce & Science College and B.C.U.D., Savitribai Phule University, Pune. January 18-19, P. 9.

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41. *Singh, M.M., Chandel, P., **Parganiha, A.** and Pati, A.K. (2018). Microwave radiation from mobile phone base transceiver stations may disrupt rest-activity rhythm and sleep quality in humans: a preliminary study. PIERS: Progress in Electromagnetic Research Symposium. August 1-4, Toyama, JAPAN.

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43. *Mishra, P., Mohanty, A.K., **Parganiha, A.** and Pati, A.K. (2018). Spatial and temporal heterogeneity in the peak timings of circannual production pattern of two prawn species, *Penaeus monodon* and *Fenneropenaeus indicus* from Chilika lagoon. International Conference on Emerging Researches in Bioscience, Department of Zoology, School of Studies in Life Sciences, Guru Ghasidas Vishwavidyalaya, Bilaspur, October 28-30, pp. 136.

44. *Sahu, B.K., Pati, A.K. and **Parganiha, A.** (2018). A transition from diurnalism to nocturnalism seems imminent in the population of urban cattle. International Conference on Emerging Researches in Bioscience, Department of Zoology, School of Studies in Life Sciences, Guru Ghasidas Vishwavidyalaya, Bilaspur, October 28-30, pp. 145.

45. *Kujur, P., Pati, A.K. and **Parganiha, A.** (2018). Properties of circadian rhythm in locomotor activity partially conform with the Aschoff's first rule under diverse environmental and social settings. International Conference on Emerging Researches in Bioscience, Department of Zoology, School of Studies in Life Sciences, Guru Ghasidas Vishwavidyalaya, Bilaspur, October 28-30, pp. 153.

46. *Parveen, N., Pande, B. and **Parganiha, A.** (2018). A study on predictors and prevalence of obstructive sleep apnea in a population of adult Indians. International Conference on Emerging Researches in Bioscience, Department of Zoology, School of Studies in Life Sciences, Guru Ghasidas Vishwavidyalaya, Bilaspur, October 28-30, pp. 153.

47. [*]Malik, S. and **Parganiha, A.** (2018). Effect of meal scheduling on circadian rhythm in phototactic behavior of zebrafish: A chronobiological approach. International Conference on Emerging Researches in Bioscience, Department of Zoology, School of Studies in Life Sciences, Guru Ghasidas Vishwavidyalaya, Bilaspur, October 28-30, pp. 155.
48. **Parganiha, A.**, Singh, M.M., Chandel, P. and Pati, A.K. (2019). Effect of low-frequency electromagnetic radiation emanating from base transceiver station (BTS) might affect sleep quality and rest-activity rhythm in humans. 30th Conference of the International Society for Chronobiology, University of Warsaw, Warsaw, Poland, July 2-5, pp. 69.

Invited Lecture:

1. **Parganiha, A.,** Waterhouse, J., Karaboue, A., Innominato, P., Iurisci, I., Giacchetti, S., Moreau, T. and Lévi, F. (2008). Rest-activity rhythm, a biomarker of the circadian timing system that predicts for toxicity and survival outcomes in cancer patients. PROUST Conference (Genes at work on time). October 15-18, Torino (Turin), Italy. pp. 23-24.
2. **Parganiha, A.** (2008). Identification of critical determinants for the best fitting cancer prognostic model. Multinational Graduate Course on Basic Chronobiology with Reference to Chronomedicine. November 2-7, Raipur, India. p. 35.
3. **Parganiha, A.**, Taj, S., Chandel, P. and Choudhary, V. (2012). Hospitalization may deteriorate biological clock function and QoL of cancer patients. International Congress on Chronobiology (ICC 2012), Delhi, India, October 3-7, p. 47.
4. **Parganiha, A.** (2014). Dichotomy index – a novel tool predicting overall and progression free survival in cancer patients. International Colloquium on Endocrinology and Physiology, Raipur, India, September 29-30, p. 13.
5. **Parganiha, A.** (2017). Circadian rhythm and quality of life in cancer patients along progression of chemotherapy cycles. IndoUS Workshop cum International Symposium on Biological Timing and Health Issues in the 21st Century. Department of Zoology, University of Delhi, Delhi, India, February 21-24, p. 24.
6. **Parganiha, A.** (2018). Dichotomy Index: An innovative tool predicting the survival in cancer patients. International Conference on Emerging Researches in Bioscience, Department of Zoology, School of Studies in Life Sciences, Guru Ghasidas Vishwavidyalaya, Bilaspur, October 28-30.
7. **Parganiha, A.** and Pati, A.K. (2019). Costs and benefits of human shift optimization. Symposium 'Shift Work', 30th Conference of the International Society for Chronobiology, University of Warsaw, Warsaw, Poland, July 2-5, pp. 20.

[*]Papers presented by co-authors; [§]Not attended

Significant contributions - a brief write-up:

Arti Parganiha is an active worker in the domain of research on Applied Chronobiology. Predominantly she studies biological clocks in shift workers and cancer patients.

The major focus of research involves: (1) Potential application of biological clock principles in cancer therapy including quality of life and psychology of cancer patients; (2) Optimization of human shift work; (3) Interaction among circadian, circannual and interval clocks with reference to human cognitive ability for short time-interval perception; (4) Patterns in blood pressure variability in human population both in health and diseases; (5) Cross-sectional studies involving Chrono-typing and behavioral sleep issues; (6) Effect of electromagnetic radiation on circadian clock function of humans; (7) Sleep-wake rhythm in subjects with obstructive sleep apnea (OSA), (8) Circadian time structure studies in economically important fish species, and (9) Behavior and cognition of free-ranging urban dogs, and wandering and foraging behavior of street cattle. This center also disseminates Chronobiology among young perspective researchers.

Parganiha is actively engaged to resolve critical issues associated with cancer therapy. She is trying to implement appropriate supportive care, a measure that could improve quality of life, and possibly survival in cancer patients. She reported disruption of circadian rhythm characterized by dampening of amplitude, lowering of mean level of activity, and phase advancement in rest-activity in cancer patients. She demonstrated that dichotomy index (I<O) – a circadian biomarker of sleep-wake rhythm is a robust and independent predictor of overall survival and progression-free survival in metastatic colorectal cancer patients. She documented that disruption of rest-activity rhythm and health related quality of life aggravates and salivary alpha-amylase levels [stress marker] increased with the progression of chemotherapy cycles in breast cancer in- and out-patients. However, deterioration was intensified in in-patients. She established hMFI-20 as a valid tool to assess the multidimensional fatigue in Indian cancer patients.

Her institution is the only center in India that is involved in addressing problems of shift workers since last two decades. She documented circadian rhythm desynchronization in a number of variables among Indian shift workers. She demonstrated that circadian rhythm desynchronization could be corrected by simply withdrawing the affected shift workers from rotational shift duties and reassigning them with normal day duty. She also documented higher level of free-floating anxiety in spouses and children of shift-working men than their day-working counterparts. Based on her studies, she has proposed a shift optimization model.