



St Aloysius College (Autonomous), Mangaluru

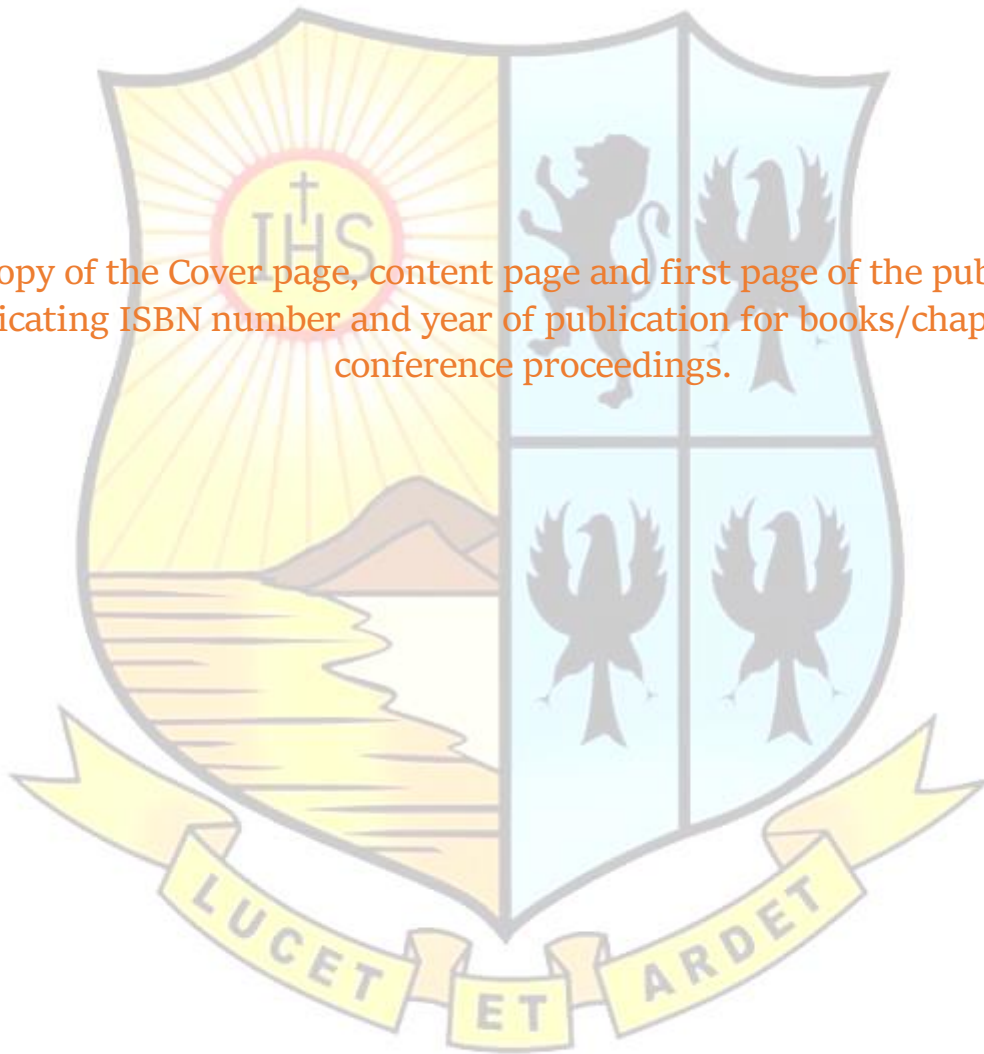
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Year: 2021-2022

3.4.4. Number of books and chapters in edited volumes / books published per teacher during the year

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ESTD : 1880



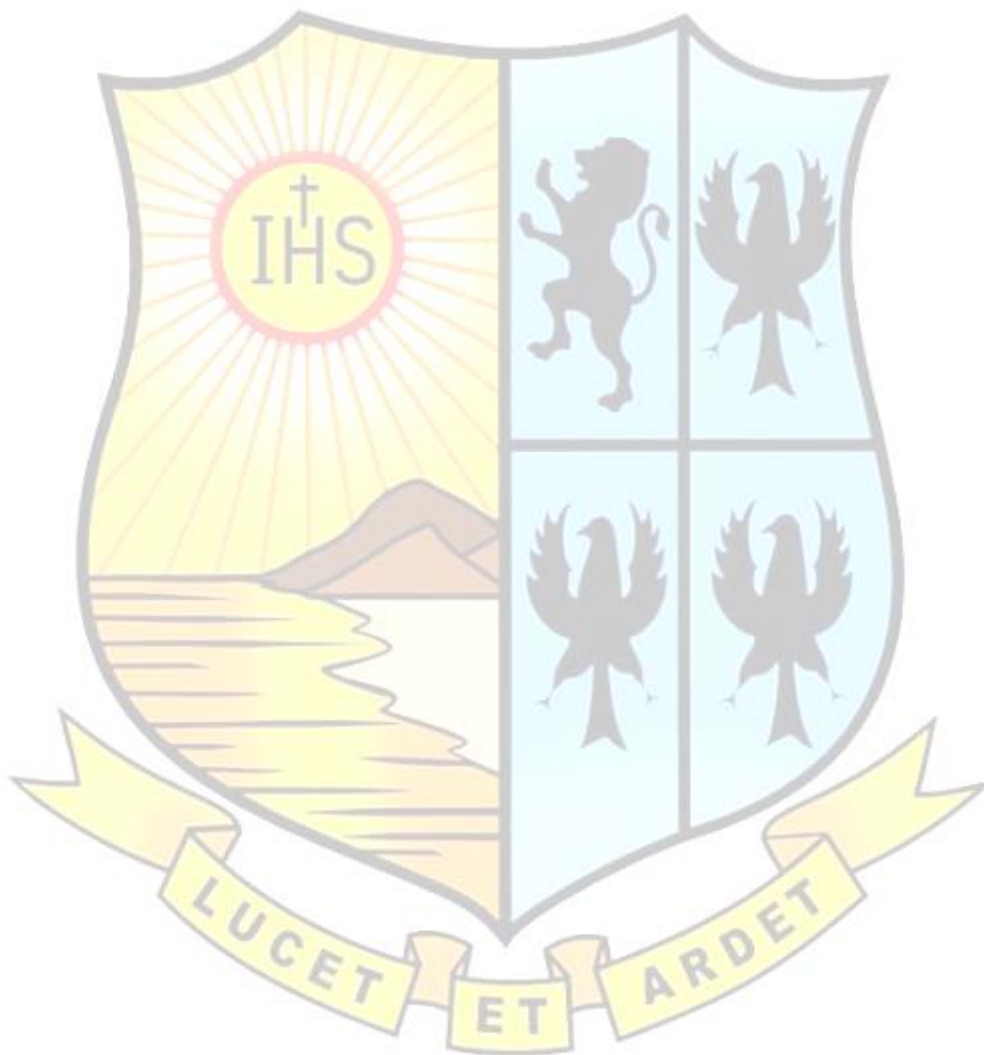


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ESTD : 1880



Welcome to Beary Language

English Hindi Kannada Beary Select Recall Vocabulary
(With Roman and IPA Scripts)



Published By



Karnataka Beary Sahithya Academy

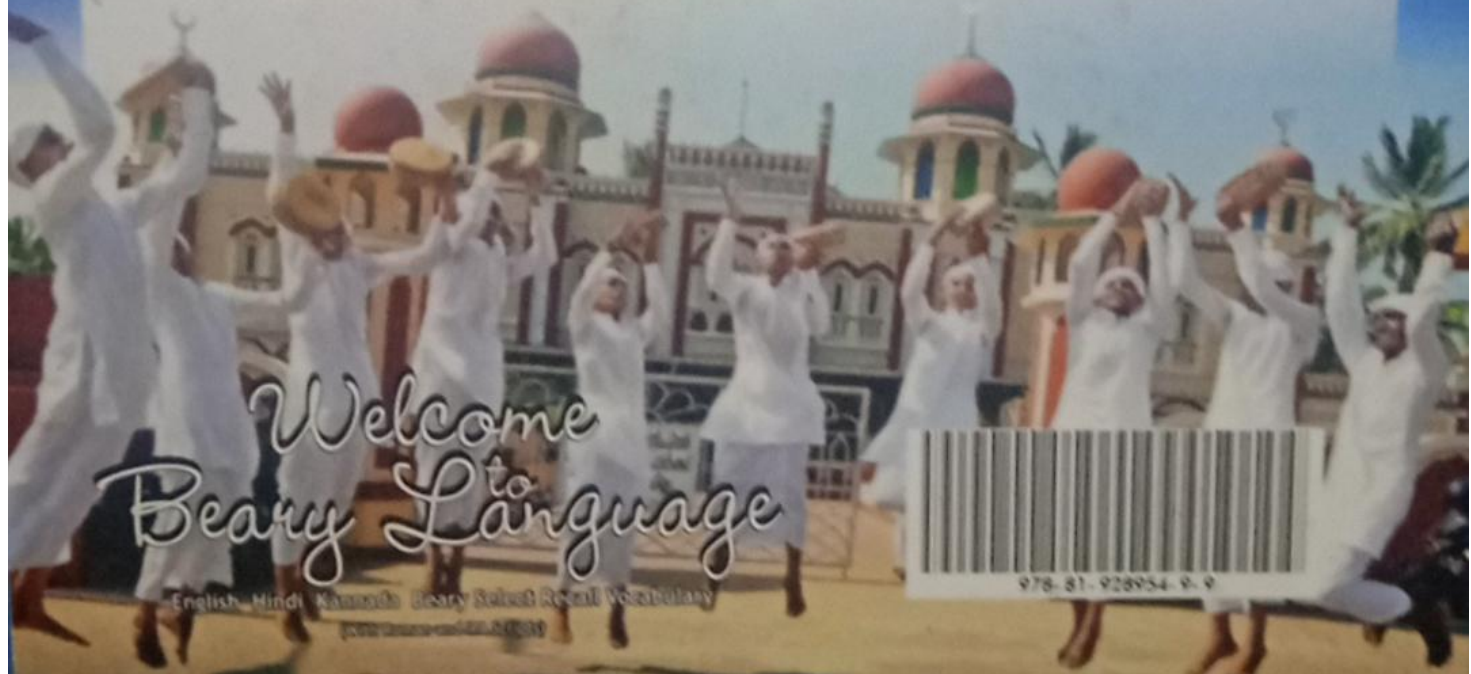


Shri Rahim Uchil is presently the Chairman of the Karnataka Beary Sahitya Academy and a multi-talented personality. Known for his talents in dramatics, literary skills and leadership qualities, he has carved a place of recognition in the Beary socio-cultural life. Born to Late Shri Sadhu Beedi K Abdullah and Smt. Asiya couple in 1974 at Uchila, he completed his schooling at Uchila, Someshwar and thereafter pursued the Bachelor degree studies under KSOU-Mysore. He took keen interest in Beary language and literature joining premier Beary newspaper as its founder editor; he was also the news reader at Beary NMC News Channel. He was the story and script writer of the first Beary video film Mami Marmol. The first full pledged Beary play, 'Kurufat katte' was written and directed by him. He has also performed in many Tulu and Beary films as well as plays. He has been very active in the political field too. He is the second time chairman of the Karnataka Beary Sahitya Academy. He has rendered laudable service in the Veera Rani Abbakka Seva Samiti, Blood-Brain-Biom banking Trust, Netravati Sangarsha Samiti, Beary Sahitya Samskrutika Sangha, Karnataka Rakshana Vedike, Central Beary Sahitya Parishad, Manava Sauharda Vedike, Dakshina Kannada Wakf Board etc. His positive involvement in all these literary, social, cultural bodies has been very useful to the growth of the the Beary community. His dynamism and spirit of team work enables him to achieve the objectives of all the organisations he has been leading.

Stephen Quadros Permude is an Associate Professor of History at Govt First Grade College for Women Puttur, Recipient of Karnataka Konkani Sahitya Akademy awards for two of his books, he has also bagged Danti Memorial Award for his services to Kannada literature. He has compiled the First (Kannada script) English-Kannada Dictionary in 2007. In 2014 his magnum opus 'English - Kannada - Konkani Three Language Dictionary' was published. He has authored more than 100 text books of History for various universities. His translations of Vachana Literature and other classical works of the 12 Century are well received. He has also translated the Constitution of India into Konkani. He has also served as the member of numerous State and Central government committees for Konkani Language, Literature and Education.



Dr Alwyn D' Sa is an Associate Professor of English and Controller of Examinations at St Aloysius College (Autonomous), Mangalore. He has 28 years of teaching and research experience both at the Under Graduate and Post Graduate levels. He has been a resource person at the UGC - ASC, Kannur University Refresher Course for teachers of languages on Comparative Literature. He was instrumental in establishing the state-of-the-art, digital language laboratory in the college and has designed several short term add on courses for students on English Language Skills. He has conducted more than 30 training workshops for teachers and youth groups on teaching methods, soft skills, communication skills and teaching English as a Second Language.



Welcome
Beary Language

English, Hindi, Kannada Beary Subject Recall Vocabulary

www.bearylanguage.com



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WELCOME TO KODAVA THAKK

(Kodava-Kannada -Hindi-English-Vocabulary)

ಕೊಡವ ತಕ್ಕಾಕ್ ತಕ್ಕಾರ

(ಕೊಡವ-ಕನ್ನಡ-ಹಿಂದಿ-ಇಂಗ್ಲಿಷ್-ತಬ್ಬಿಕೊಡ)



ಕರ್ನಾಟಕ ಕೊಡವ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ಮಡಿಕೇರಿ.
Karnataka Kodava Sahithya Academy, Madikeri.



Welcome to Kodava Thakk ಕೊಡವತಕ್ಕಕ್ ತಕ್ಕಾರ

The Kodava - Kannada - Hindi - English - Select Recall Vocabulary
(ಕೊಡವ-ಕನ್ನಡ-ಹಿಂದಿ-ಇಂಗ್ಲಿಷ್-ಶಬ್ದಕೋಶ)

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'ಬಿಳಿಯ ಮೊಗ್ಗು' ತಣ್ಣಗೆಯ ರೂಪಕ

ಡಾ. ದೀಪಕ್ ನಾಯಕ್ ಕಾರಾಚಿ

ಕೂರೂನಾ ಕಾಲಘಟ್ಟದಲ್ಲಿ ಹುಟ್ಟಿದ ಕವಿಗಳಿಗೆ ಲೆಕ್ಕವಿಲ್ಲ. ನೋಡ ನೋಡುತ್ತಿದ್ದಂತೆ ಎಲ್ಲರೂ ಕವಿ/ಬರಹಗಾರರು, ಕಲಾವಿದರು ಎನ್ನುವ ಕಾಲಘಟ್ಟವೊಂದು ಮೊನ್ನೆ ಮೊನ್ನೆಯಲ್ಲಿ ಸಂಭವಿಸಿದ್ದು ಸುಳ್ಳೇನೂ ಅಲ್ಲ. ಕವಿತೆ ಎಂದರೇನು? ಕವಿತೆಯ ಮೂಲ ಏನು? ಒಳ್ಳೆಯ ಕವಿತೆಯ ಶಕ್ತಿ ಏನು? ಕವಿತೆ ಪ್ರಜ್ಞಾವೂರ್ವಕವಾದ ಬರವಣಿಗೆಯೋ ಅಥವಾ ನಿರ್ದಿಷ್ಟ ಸಂದರ್ಭದಲ್ಲಿ ಓತವೋಚವಾಗಿ ಹರಿದು ಬರುವುದೋ ಎಂದೆಲ್ಲ ಕಾವ್ಯ ಮೀಮಾಂಸೆ, ಸಾಹಿತ್ಯ ವಿಮರ್ಶೆಯ ಚರ್ಚೆಗಳೆಲ್ಲ ಬಹುತೇಕ ಕಣ್ಮರೆಯಾದ ಸಾಂಸ್ಕೃತಿಕ ಸಂದರ್ಭವಿದು. ಈ ಹೊತ್ತಲ್ಲಿ ಒಟ್ಟು ಬರವಣಿಗೆ ಎಂಬ ಕ್ರಿಯಾಚರಣೆಯ ಬಗ್ಗೆಯೇ ವಿಮರ್ಶಾ ವಲಯದಲ್ಲಿ ಮತ್ತು ಓದುಗರಲ್ಲಿ ಅಪಾರವಾದ ಸಹನೆಯೋ ಅಥವಾ ಔದಾಸೀನ್ಯವೋ ಏನೋ ಒಂದು ಬಂದು ಬಿಟ್ಟಿದೆ ಕೂಡಾ. ಇಂಥಾ ಸಾಮಾಜಿಕ ಸಂದರ್ಭದಲ್ಲಿ ಮನುಷ್ಯ ಅವರ 'ಬಿಳಿಯ ಮೊಗ್ಗು' ಕವಿತಾ ಸಂಕಲನವನ್ನು ಓದತೊಡಗಿದಾಗ ಆಶ್ಚರ್ಯ, ಕುತೂಹಲ ಜೊತೆಗೆ ಭರವಸೆಯೂ

ಅಡಗು ಸಮಗ್ರ ಸಾಹಿತ್ಯ-ದ ಸಮಗ್ರ ಕಾವ್ಯ ಕೃತಿಯ ಹೊದಲಲ್ಲಿ ಗೋಪಾಲಕೃಷ್ಣ ಅಡಗರು ಕವಿಯಾದವನು ಏನು ಮಾಡುತ್ತಾನೆ ಎಂಬುದನ್ನು ಹೇಳುತ್ತಾ "ಎಲ್ಲ ಒಬ್ಬ ಒಂದು ಕಾಲದಲ್ಲಿ ಕವಿ ಮನಸ್ಸಿನ ಒಳಕವಲಲ್ಲಿ ಯಾವುದನ್ನು ಅಸ್ಪಷ್ಟವಾಗಿ ಕಾಣುತ್ತಾರೋ, ಅನುಭವಿಸುತ್ತಾರೋ ಅದನ್ನೇ ಕವಿಯಾದವನು ಇನ್ನಷ್ಟು ಸ್ಪಷ್ಟವಾಗಿ ಅನುಭವಿಸಿ, ಅದನ್ನು ಕನ್ನಡ ಕಟ್ಟುಗಳಲ್ಲಿ ಮೂರ್ತಿಗೊಳಿಸಿ ಆ ಮೂರ್ತಿಯಲ್ಲಿ ಅದರ ಅದರ್ಶ ರೂಪವೂ ಹೊಳೆಯುವ ಹಾಗೆ ಮಾಡುತ್ತಾನೆ. ಓಗಿ ಅವನು ಬದುಕಿನ ಅಧ್ಯಯನಕ್ಕೂ, ಶ್ರೀಯಸ್ಸಿಗೂ ಕನ್ನಡ ಪ್ರತಿಮೆಗಳನ್ನು ಸೃಷ್ಟಿಸಿ ಹೊಸ ಕಾಲಕ್ಕೆ ಅತ್ಯಗತ್ಯವಾದ, ಹೊಸ ಸಂದರ್ಶನಗಳಿಗೆ ಕನ್ನಡ ಬರವಣಿಗೆಯನ್ನು ರಚಿಸುವುದರ ಮೂಲಕ ಸಮಸಾರಿಗಳಾಗುತ್ತಾನೆ. ಸಮಸಾರಿಗಳೆಂದರೆ ಸಾತ್ಯಲಿಪಿ ಅಲ್ಲ, ಎಲ್ಲ ಕಾಲದಲ್ಲೂ ಸಲ್ಲುವಂಥದು. ಈಗ ಈ ಕಾಲದಲ್ಲಿ ಯಾವ ರೀತಿ ಎಂಥ ಮೇಷದಲ್ಲಿ ಎಂಥ ರೂಪಾಂತರದಲ್ಲಿ ವ್ಯಕ್ತವಾಗುತ್ತದೆ ಎಂದು ಕಾಣುವ ಕಂಡರಿಸುವ ಶಕ್ತಿ" ಅಂದರೆ ಅಡಗರ ಪ್ರಸಾರ ಕವಿಯಾದವನು ತಾನು ಕಂಡರಿಸಿದ್ದನ್ನು ಪ್ರತಿಮೆ, ರೂಪಕಗಳ ಮೂಲಕ ಕಟ್ಟುತ್ತಾ ವರ್ತಮಾನದೊಂದಿಗೆ ಮುಖಾಮುಖಿಯಾಗುತ್ತಾನೆ. ಆ ಮುಖಾಮುಖಿಯು ಸನ್ನಿವೇಶದಲ್ಲಿ ಕವಿತೆ ಎಲ್ಲ ಕಾಲದಲ್ಲಿ ಉಳಿಯುವ ಹಾಗೆ, ಎಲ್ಲ ಕಾಲಕ್ಕೆ ಪ್ರಸ್ತುತಗೊಳ್ಳುವ ಹಾಗೆ ಮಾಡಲು ಕವಿಯಾದವನು ಶ್ರಮಿಸುತ್ತಾನೆ. ಇದು ಅಮೃತತ್ವಕ್ಕೆ ಬಯಸುವ ಮನುಷ್ಯ ಪ್ರವೃತ್ತಿಯ ಅಭಿವ್ಯಕ್ತಿಯೇ ಆಗಿದೆ. ಈ ಅಭಿವ್ಯಕ್ತಿ ಅವನ ಧನಾತ್ಮಕ ತೆವಲು ಎಂದರೂ ಸರಿಯೇ. ಹಾಗಾಗಿಯೇ ಇದು ಒಳ್ಳೆಯ ಕವಿಗಳಲ್ಲಿ ಕವಿತೆಯನ್ನು ಒಗಟಾಗಿಸುವ, ಸಾಂಕೇತಿಕಗೊಳಿಸುವ ತಂತ್ರವಾಗಿಯೂ ಕಾಣಿಸಿಕೊಳ್ಳುತ್ತದೆ. ಈ ಅರ್ಥದಲ್ಲಿ ಡಿ ಆರ್ ಪಾಗಲಾಜ್ ಅವರು ಹೇಳುವ ಹಾಗೆ ಕಾವ್ಯ ಎಂಬುದು ಸದಾ ಅಮೃತಕ್ಕೆ ಹಾರುವ ಗುಡದಂತೆಯೇ. ಸಾವಿನ ನೆನಪಲ್ಲಿ ತಾನು ಅಜರಾಮರವಾಗುವ ಉತ್ಕಟ ಬಯಕೆ ಇದೆ. ಮನುಷ್ಯ ಅವರ ಕವಿತೆಯ ಗೊಂಚಲನ್ನು ಓದುವಾಗಲೂ ನನಗೆ ಮತ್ತೆ ಮತ್ತೆ ಇದು ನೆನಪಾಗುತ್ತದೆ. ಮನುಷ್ಯ ಅವರ 'ಕಲ್ಪಕೃಷಿಯ ಕಲರವ' ಕವಿತಾ ಸಂಕಲನದ ಕವಿತೆಗಳ ಬಗ್ಗೆ ಇತ್ತೀಚೆಗಿನ ಭರವಸೆಯ ಪತ್ರಿಕೆ 'ಮನಕನ'ದಲ್ಲಿ ಬರೆದಿದ್ದ ಡಾ. ತ್ರಿವಿವಾಸ ಗಿಳಿಯಾರು ಅವರು ಓಗಿ ಹೇಳುತ್ತಾರೆ: "ಮನುಷ್ಯ ಅವರ ಕೃತಿಯಲ್ಲಿ ಸ್ವಂತಿಕೆ ಮತ್ತು ಅಪ್ಪಟ ದಲಿತ ಸಂವೇದನೆ ಕಂಡು ಬರುತ್ತದೆ. ಈ ಕಾರಣಕ್ಕಾಗಿ ಕಲಾವಿಧಾನದ ಇತ್ತೀಚೆಗಿನ ಬರಹಗಾರರಲ್ಲಿ ಮನುಷ್ಯ ಮುಂಚೂಣಿಯಲ್ಲಿ ನಿಲ್ಲುತ್ತಾರೆ. ಮನುಷ್ಯ ಅವರು ದಲಿತ ಸಂವೇದನೆ ಹೊಂದಿರುವ ಕಾವ್ಯಧಾರೆ/ಕಥನದ ಧಾಷೆಯನ್ನು ರೂಡಿಸಿಕೊಂಡಿದ್ದರು. ಕಾವ್ಯದ ಅರ್ಥಗಳು ಕಾರಣಿಕ ದೈವಗಳು

ಜಗತ್ತಿನಲ್ಲಿ ಸ್ವಲ್ಪ ಹೆಚ್ಚುತ್ತಿರುವ ಹಾಗೂ ಅಲ್ಪವಾಗಿರುವವರು ಹಾಕಿದ
 ಆದಾರದ ಮೀಸಲಾತಿಯನ್ನು ಒಪ್ಪದ ಮಂಜು ಮತ್ತು ಸಾಮರ್ಥ್ಯವನ್ನಷ್ಟೇ
 ಪರಿಗಣಿಸಬೇಕು ಎಂದು ಹೇಳುತ್ತಿದ್ದಾರೆ. ಆದರೆ ದಲಿತ ಜಗತ್ತಿನಲ್ಲಿ ಕೋಪಣೆ,
 ಹೂವೆಯ ವಿರುದ್ಧದ ಧ್ವನಿ ಇನ್ನೂ ಹಾಗೇ ಇದೆ. ಈ ಓನ್ನೆಲೆಯಲ್ಲಿ ಮನುಷ್ಯ
 ಅಪರ ದಲಿತ ಸಂವೇದನೆಯ ಹಾತ್ವಿಕ ಸ್ವರೂಪವನ್ನು ಗ್ರಹಿಸುವುದಾದರೆ
 ಉತ್ತಮವಾದ ಅಂಶಗಳು ಬೆಳಕಿಗೆ ಬರುತ್ತವೆ.

ಈ ಸಮಾಜಕ್ಕೆ ಎಲ್ಲ ಕಾಲದಲ್ಲಿ ಬೇಕಾದುದು ಬೇಕೆರಟಿತೆ ಹೊಂದಾಣಿಕೆಯ
 ವ್ಯಕ್ತಿ ಮನುಷ್ಯ ಅಪರ ಸ್ವಭಾವ ಇದಕ್ಕೆ ತದ್ವಿರುದ್ಧವಾಗಿತ್ತು. ಮನುಷ್ಯ ಅಪರ ಬಗ್ಗೆ
 ನಾನು ಕೇಳಿದ ಹಾಗೆ ಅವರು ಕೋಪಣೆ, ದಬ್ಬಾಳಿಕೆ, ಸಾಮಾಜಿಕ ಅಸಮಾನತೆಯ
 ಬಗ್ಗೆ ನೇರವಾಗಿ ಮಾತಾಡುತ್ತಿದ್ದವರು. ಉದ್ದೇಗ, ಅಕ್ಷೋಣ ಅವರ ಮಾತುಗಳಲ್ಲಿ
 ಸ್ವಾಯಂಭಾವವಾಗಿತ್ತು. ಪಾಠಾಗಿಯೇ ಬದುಕಲ್ಲಿ ನೆಲೆ ಕಂಡುಕೊಳ್ಳಲು ಹೋಗಿ
 ಅವರು ಜೀವನದುದ್ದಕ್ಕೂ ಕಷ್ಟವನ್ನು ಅನುಭವಿಸುತ್ತ ಬಾಳಿದವರು. ಅಪರ
 ತನಗೆ ಸರಿ ಕಾಣದ್ದನ್ನು ಪ್ರತಿಭಟಿಸುವ ನೇರ ಸ್ವಭಾವದ ಮನುಷ್ಯ ಅಪರ ಭೃ
 ಮಾತಿನ ಕ್ರಮಗಳು ಕವಿತೆಯ ಅಭಿವ್ಯಕ್ತಿ ಕ್ರಮಗಳಲ್ಲಿ ಗೈರು ಪಾಪರಾಗುವ ಬೆ
 ತೀರಾ ಆಸಕ್ತಿಯನ್ನು ಹುಟ್ಟಿಸುತ್ತವೆ. ದಲಿತ ಜಗತ್ತಿನ ನೋವನ್ನು ಅವರು ಪು
 ಕವಿತೆಗಳಲ್ಲಿ ಸಂವೇದಿಸುವ ಬಗೆಯೇ ವಿಶಿಷ್ಟವಾದುದು. ಇಂಥಾ ಕವಿತೆಗಳಲ್ಲಿ
 ಕನಸುಗಳಲ್ಲ, ಕಾಲ್ಪನಿಕ ಲೋಕವಿಲ್ಲ. ಭ್ರಮೆಯ ರೂಪುಗಳಲ್ಲ ಇಲ್ಲಿ ಸಮಾಜ
 ವಿಕಾರಗಳನ್ನು ತಣ್ಣನೆಯ ರೂಪಕಗಳ ಮೂಲಕ ಅವರು ಓದಿರಬಹುದಾದರೂ
 ಮಾಡುತ್ತಾರೆ. 'ನಮ್ಮ ರೊಟ್ಟು' ಕವಿತೆಯಲ್ಲಿ ಈಗ ಹೋರಾಟಗಾರರೂ
 ಕಳೆದುಕೊಂಡಿವೆ ಎಂಬುದನ್ನು ಹೇಳುತ್ತಾ ವರ್ತಮಾನದಲ್ಲಿ 'ನನೂ ಉಳಿದಿಲ್ಲ
 ನಮ್ಮ ರೊಟ್ಟು ಕಿಚ್ಚಿಗೆ, ಪಾಚಿ ನೀರಿನಲ್ಲಿ ತೇಲಿ ಬಂದ ಬಣ್ಣ ನಮ್ಮದು. ಬಣ
 ಹುಳದ ಬೆಳಕಿನಲ್ಲಿ ಕಂಡ ಕನಸು ನಮ್ಮದು' ಎನ್ನುತ್ತ ಹೋರಾಟದ ಭೇಷ
 ಬಗ್ಗೆ ಮತ್ತು ಅದರ ಬಗ್ಗೆ ಅವರು ಕಾಯ್ದುಕೊಂಡು ಬರುತ್ತಿರುವ ಅಂಶದ ಬೆ
 ಹೇಳುವ ಹಾಗೆ ಅರ್ಥ ಸ್ಫುರಿಸುತ್ತದೆ. 'ನಮಗೆ ಹೂವು ಬಾರದು' ಕವಿತೆ
 ಉಳ್ಳವರು ತಿನ್ನುವ ಊಟವನ್ನೇ ಕಂಡು ಹೊಟ್ಟೆ ತುಂಬಿಕೊಳ್ಳಬೇಕೆ
 ಜಗತ್ತೊಂದು ಅನಾಮಿಕವಾಗುವ ಬಗ್ಗೆ ಯಾವ ಕೋಪ ಇಲ್ಲದ ಸುಲ
 ಹೇಳುತ್ತಾರೆ.

ಕವನಗಳಲ್ಲಿ ಅಲ್ಲಲ್ಲಿ 'ಹಟ್ಟಿಯನ್ನು ತಟ್ಟುತ್ತಾ ಕನ್ನಿ ಬಿಡು' ಇ
 ಸ್ನೇಹಿತರು ಕೆಂಪಾದ ಕೆಂಪು ಕಿಡಿಗಳು, ಕನ್ನಿ ನೆಲದಲ್ಲಿ ದುಡಿಯುತ್ತಾ ಬಾಡ
 ಅಡಿಗಲ್ಲಾದರು, ಅವರ ಜೀವನ ಜೀತದ್ದು' ಎಂದು ಹೇಳುವ ಉತ್ತಮ
 ಅವರು ಈ ದೇಶದ ಸಾಮಾಜಿಕ ಚರಿತ್ರೆಯನ್ನು ಎಲ್ಲಾ ಕಡೆಗೆ ಸಮಾಜ

ಕೋಪವಿಲ್ಲ. ಆದರೆ 'ನಿಧಾನ ನಿಧಾನ' ಕವಿತೆ ಈ ನೆಲೆಯಲ್ಲಿ ಸ್ವಲ್ಪ ಇನ್ನೂ ಹೆಚ್ಚು
 ನಿಲ್ಲುತ್ತದೆ. ಸಾಮಾಜಿಕ ಚರಿತ್ರೆ ಮತ್ತು ಚರಿತ್ರೆಯ ತಪ್ಪುಗಳ ಓನ್ನೆಲೆಯಲ್ಲಿ
 ಬೆಂಕಿಯ ತುಂಬ ಪವರ್ ಫುಲ್ ಕವಿತೆ. 'ನಮ್ಮ ಮಾವದವರು ಸತ್ತು ಹಾವಿನ
 ಕಂಠಾಸುಳಿ, ಮುಂದು ಬಿದ್ದರೂ ಅತ್ತ ಕೃಷ್ಣನ ಸಂಪಾನಗಳು' ಸಾಲುಗಳು ಇಲ್ಲಿ
 ರೊಡ್ಡ ರೂಪವನ್ನೇ ಮುಂದಿಡುತ್ತದೆ. ಆದರೆ 'ನನ್ನ ಜನರು' ಮತ್ತು 'ಕೊಳೆಗೇಲಿ'
 ಕವಿತೆಗಳು ಬಹಳೇ ದಲಿತ ಸಂವೇದನೆಯುಳ್ಳ ಕವಿತೆಗಳಾಗಿ ಮುಂಚೂಣಿಯಲ್ಲಿ
 ನಿಂತರೂ ಸರಳ ಮೇಲ್ವರದ ವಿವರಗಳಿಂದ ಕೊರಗುತ್ತವೆ. ಕವಿ ಮನುಷ್ಯ
 ಅವರಿಗೆ ಎಲ್ಲವೂ ವಿಚಿತ್ರವಾಗಿ ಮಾತ್ರ ಕಾಣುತ್ತದೆ. ಹಾಗಾಗಿ ಅವರ ಕವಿತೆಗಳಲ್ಲಿ
 ಕುಳುಮೈ ದಲಿತ ಜಗತ್ತು ಅನಾಮಿಕವಾಗಿ ಉಳಿದು ಬಿಡುತ್ತದೆ. ಈ ಪ್ರಪಂಚ,
 ಈ ಜನ ಯಾಕೆ ಓಗಿ ಎಂಬ ವಿಷಯವನ್ನೇ ಅವರನ್ನು ಸಂಕಲನದುದ್ದಕ್ಕೂ
 ಕಾಣುತ್ತದೆ.





Disease Detection And Insect Identification

A Machine Learning Approach in Crops

Dr Hemalatha N

Dr Raji Sukumar A

Ms Lidia



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MODERN BANK MANAGEMENT

DR NORBERT LOBO



Probiotic Research in Therapeutics

Indu Pal Kaur
Editor-in-Chief

Kanwaljit Chopra • Mahendra Bishnoi •
Kanthi Kiran Kondepudi
Editors

Probiotic Research in Therapeutics

Volume 5: Metabolic Diseases
and Gut Bacteria



Springer

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Foreword by J. V. Yakhmi

The saying attributed to Hippocrates, the Father of Medicine, that “Let food be thy medicine, and let medicine be thy food” never felt more valid than now when we are challenged by a variety of lifestyle diseases. The relevance of holistic healing has increasingly been related, in recent years, to the gut microbiome, composed of bacteria, archaea, viruses and eukaryotic microbes, all of which reside in our gut, and together have a strong potential to impact our physiology, both in health and in disease. When faced with a variety of diseases, our present-day knowledge lays emphasis on the importance of a healthy microbiome, not only limited to gut health but also to metabolic disorders, cancers, immunity, brain health and skin health. Can we manipulate the gut microbiota by probiotic intervention towards disease prevention and treatment? That is precisely what is receiving the attention of a large number of scientists engaged in research on human health. The growing market interest in health benefits of probiotics has intensified research and investments in this area. With an overwhelmingly large number of new products based on probiotics on the shelves of the supermarkets and pharmacies, it can be inferred that the research in this area is at a very exciting stage. Though the intricate mechanisms involved in the importance of gut flora may require some basic scientific expertise, surfing through scientific claims on usefulness of probiotic therapy can catch the fancy of even a general reader.

I have known Prof. Indu Pal Kaur, chief editor of this book series, for the past 12 years and have been closely following her research interests which essentially hover around being a formulation scientist, be it for small and large molecules, phytochemicals and probiotics. I have noticed her deep interest in trying to complement the observational data compiled in the traditional system of medicine with scientific rationale from currently available information. I have myself discussed with her, several times, the human microbiome and its manipulations for useful therapeutic options. She has been active in the topic of probiotics for a long time, and had, in fact, published her first review on Potential Pharmaceutical Applications of Probiotics way back in 2002, which has been cited over 500 times till date. Her passion to bring probiotics into mainstream therapeutics is not limited only to the ailments of the gut, *viz.* inflammation, ulcers and cancers, but is also aimed to extend it to other lifestyle diseases, such as depression, chronic fatigue syndrome, vaginal candidiasis, wound healing and skin health.

The present e-book series, comprising five volumes, brings latest information and key insights on application of probiotics in cancer and immunological disorders, gut inflammation and infection, skin ailments, neurodegenerative disorders, and metabolic disorders. The contributing authors are recognized experts which ensures that each chapter affords a critical insight into the topic covered, with a review of current research, and a discussion on future directions in order to stimulate interest. Each volume itself covers a broad theme in detail by including chapters disseminating basic information in the field in such a manner that it would attract the attention of even a stray reader or intending consumers. Of course, the whole series of five volumes is designed with care so as to not only ignite the minds of graduating students for future research but also boost the confidence of health professionals, physicians, dieticians, nutritionists and those practicing naturopathy by underlining the integrity of the data documented in the chapters of these volumes from well-established labs and groups. All in all, a very thoughtful compendium of probiotics research in therapeutics!

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Foreword by B. Sesikeran

Our lifestyle and dietary habits have changed significantly due to rapid economic growth and improvement of living standards, accelerating the incidence and prevalence of metabolic disorders such as diabetes, obesity and other non-communicable diseases. The World Health Organization described obesity as a global epidemic hazard way back in 1997. According to recent statistics, 11% of men and 15% of women are obese globally. From the last 2 decades, the diabetes prevalence has significantly increased with 420 million people affected worldwide, and it is predicted to double by 2030. Over the years, the significant role that microbes play in the intestinal ecosystem and thereby have a bearing on the health and well-being of the host was well established through animal studies as well as observations made in humans. The human gastrointestinal tract consists of nearly 100 trillion microorganisms, referred to as the gut microbiota or gut microbiome. The microbial colonization in the human gut begins at the time of birth and it keeps changing with age, diet, health status and antibiotic treatment. These microbes play several vital physiological and metabolic functions in the human body. Further, it is observed that alteration in the human gut microbiota can cause various chronic and acute metabolic diseases such as obesity, hypertension, neurogenic diseases and diabetes. Hence, re-establishment of normal microbial population, with the help of commensal probiotic bacteria, to undo the gut dysbiosis, has always been a topic of great interest.

The fifth volume of the e-book series “*Probiotic Research in Therapeutics: Metabolic Diseases and Gut Bacteria*”, by Prof Indu Pal Kaur and her competent team of editors, is an essential addition to our growing understanding of the role of the gut microbiota in a wide range of metabolic diseases. The volume is a comprehensive compilation describing scope and application of probiotic and prebiotic therapies in the treatment of metabolic disorders right from obesity to diabetes to other metabolic and liver disorders, with each chapter demonstrating hope and scope of application. Readers will gain great insights on how probiotics are not confined to the microbial technology industry but hold great promise in medical therapeutic and pharmaceutical sector. The volume provides an authoritative and timely overview of the field. This e-book may serve as one of the riveting reference materials for times to come!

Hyderabad, Telangana, India

B. Sesikeran

Preface

In the early twentieth century, a Russian scientist and Nobel laureate, Metchnikoff, for the first time, linked consumption of “good” bacteria with superior host health. He suggested that the dysbiotic human gut microflora can be replaced by beneficial bacteriotherapy, i.e. probiotics. In the recent years, the faulty gut microbiome is implicated in etiopathogenesis of multiple diseases not limited to intestinal issues (inflammatory bowel diseases, colon cancer) but is also being alluded in metabolic disorders. However, the exact role of microbiome in metabolic diseases has remained elusive, primarily because the central drivers of dysmetabolism also influence the microbiome composition: diet and lifestyle. While it is conceptually intuitive that the gut microbiome and host metabolism would be interrelated, disentangling cause and effect remains a challenge.

The fifth volume of the present e-book series entitled “Probiotic Research in Therapeutics: Metabolic Diseases and Gut Bacteria” focusses on the potential scope of manipulating gut microbiome by probiotic therapy for management of metabolic disorders including diabetes mellitus, metabolic acidosis and obesity. The volume comprises 13 chapters. Introductory chapter highlights the importance of gut–brain axis and its important role in hunger and satiety. Mechanism of appetite regulation by gut microbiota and their role in obesity control is also elaborated in detail in this chapter. Chapter 2 unravels the anti-obesity action of probiotics and dairy based ingredients. Chapter 3 describes the connect between gut dysbiosis and metabolic endotoxemia and scope of its redressal by active probiotic/prebiotic supplementation. Next four chapters elaborate on the amelioration of diabetes mellitus, one of the most prevalent metabolic disorder, by probiotic and/or prebiotic therapy and the importance of healthy gut microbiota in ameliorating diabetes. Clinical and preclinical evidence of a close association of disrupted gut microbiota with the high incidence of diabetes are also discussed in these chapters. Chapters 8 and 9 portray the scope of probiotic therapy in prophylaxis and management of alcohol-induced liver diseases. The authors describe underlying mechanism of action and provide a consolidated overview on the preclinical and clinical evidence supporting probiotic therapy in the management and control of alcoholic liver disease. Next in line is the chapter discussing the effect of probiotic supplementation in modulation of serum lipids. Chapter 11 discusses the concept of prebiotics, microbiota modulation by prebiotics and the impact of prebiotics in various metabolic disorders. Chapter 12

envisages a brief introduction on designer probiotics, their developmental strategies and applications in regulating metabolic diseases, and finally the challenges in the path of their development. Last chapter of the volume describes the advantages and challenges of current animal models used in the evaluation of probiotics for metabolic disorders. Emphasis is laid on describing the future directions in designing better animal models for these evaluations.

With the state-of-the-art commentaries on all aspects of probiotic research for metabolic disorders, from contributors across the globe, the e-book provides an authoritative and timely overview of the field. It is envisioned that this book will be a useful educational and scientific tool to academicians, health professionals, students, and pharma/ biotech businessmen worldwide. As editors of the book, we express our sincere thanks to all the authors for their excellent contributions to the book.

Chandigarh, India
Chandigarh, India
Punjab, India
Punjab, India

Indu Pal Kaur
Kanwaljit Chopra
Mahendra Bishnoi
Kanthi Kiran Kondepudi

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About the Editors

Indu Pal Kaur is presently working as the professor and chairperson at the University Institute of Pharmaceutical Sciences (UIPS). She has more than 25 years of teaching and research experience. Her research forte enhances the performance of small and large biomolecules, including probiotics using active-tailored delivery systems. The emphasis of her work lies in industrial and clinical translation. She has delivered 50 invited talks, published more than 145 high-impact international publications and 21 book chapters; and edited four books and four journal special issues; more than 150 presentations have been made by her research group, with 30 sentenced as best presentations.

Kanwaljit Chopra the former chairperson of the University Institute of Pharmaceutical Sciences, has prolific experience of 28 years in research and holds distinguished expertise in neuropharmacology, diabetes and metabolic diseases, pain, inflammation, and menopausal complications. She has more than 215 international and national publications in high-impact journals, acclaimed globally for her research work. She has received 11 prestigious national and international awards. She has fetched grants of over 1.5 crores from the government as well as industry. She has been an active member of national and international societies. Her “Reverse Pharmacology” approach has provided strong leads to the scientific community for the translational potential of various moieties of natural origin.

Mahendra Bishnoi is working as Scientist E, Food and Nutritional Biotechnology, National Agri-Food Biotechnology Institute, Mohali. He is presently leading a group of young researchers dedicated to metabolic disorders (obesity and type-2 diabetes) research with a particular focus on nutrition and diet, the development of molecular evidence-based functional foods, and nutraceuticals. His scientific work is well recognized in more than 120 peer-reviewed and high-impact factor scientific journals, with around 4000 citations. Dr. Bishnoi is an Alexander von Humboldt Experienced Fellow, Early and Mid-Career Research (EMCR) fellow of Indian National Science Academy (INSA), Melvin Yahr awardee from World Federation of Neurosciences.

Kanthi Kiran Kondepudi is presently working as Scientist E in the Food and Nutrition Biotechnology Division at National Agri-Food Biotechnology Institute, an autonomous institute under the Department of Biotechnology, Government of India. Dr. Kondepudi is actively working on developing dietary interventions that could beneficially modulate the gut bacteria and could protect from proinflammatory stress underlying many diseases with an overall goal to develop functional foods based on millets and their bioactive ingredients, dietary fibers, prebiotics, probiotics, and other functional ingredients from different plant sources. His group uses rodent models, nutrigenomic and metagenomic approaches for evaluating the efficacy of bioactive ingredients and functional foods.

CATHOLIC CHURCH & SOCIAL CHANGES IN INDIA

Editors

K S Mathew

Joseph Chacko Chennattuserry CMI

Francis Thonippara CMI



WOMEN MISSIONARIES IN COASTAL KARNATAKA WITH SPECIAL REFERENCE TO THE APOSTOLIC CARMEL CONGREGATION

Mona Jacqueline Mendonça

1. Introduction

In the 19th century, the missionaries took up education as a tool to strengthen their roots in the country. They introduced various strategies to keep the missionary activities going along the lines.¹ Missionary education then meant imparting Christian knowledge (the Gospel) and principles coinciding with value-based education. They believed such education could bring deeper spiritual formation in the pupil who would eventually form to be pillars of the upcoming Christian Church in the country. In this context, various missionaries in India, both men and women, saw religion and education as important tools of missionary activity, and gradually various missionary teams became powerful. The style of work changed depending on the geography, need and the changing social and political scenario.²

¹ The Charter Act of 1833 permitted the English to settle freely in India. This act also legalized the British colonization of the Country and approved the permanent presence of missionaries in India. With the increase in the number of the British residents in the country it sought to regulate the establishment of Christian instructions here with the help of the missionary agencies.

² C. P. Mathew and M. M. Thomas, *The Indian Churches of Saint Thomas*, Indian Society for Promoting Christian Knowledge (ISPCK), New Delhi, 2006, p. 48.

ಜಾಗತೀಕರಣ ಮತ್ತು ಮಹಿಳೆ
-ಸವಾಲುಗಳು ಹಾಗೂ ಭರವಸೆಯ ನಡೆ

ಪ್ರೊ. ಬಸವರಾಜ ಜಿ
ಗಿರಿಜಾ ಕೆ.ಎಸ್
ಡಾ. ಸುಮಂಗಲ ಆರ್.ಕೆ



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ಯತ್ರ ನಾರ್ಯಸ್ತು ಪೂಜ್ಯಂತೆ ರಮಂತೆ ತತ್ರ ದೇವತಃ|

ಎಲ್ಲಿ ಸ್ತ್ರೀ ಪೂಜಿಸಲ್ಪಡುತ್ತಾಳೋ ಅಲ್ಲಿ ದೇವತೆಗಳು ನೆಲೆಸಿರುತ್ತಾರೆ ಎನ್ನುವ ಅನಾದಿ ಕಾಲದ ನಂಬಿಕೆಯ ಬಲೆಯೊಳಗೆ ಬಂಧಿಯಾದವಳು ಮಹಿಳೆ. ಮಾತೆ, ದೇವತೆ ಎಂದು ಉನ್ನತ ಪೀಠದಲ್ಲಿ ಗುರುತಿಸಲ್ಪಟ್ಟು ಈ ಆಧುನಿಕ ಪುರುಷ ಪ್ರಧಾನ ಸಮಾಜವು ಮಹಿಳೆಗೆ ಕೇವಲ ಶೀಲ, ಪಾತಿವ್ರತ್ಯದ ಗಂಟುಕಟ್ಟಿ, ತನ್ನ ಸುಖ ಮತ್ತು ಭೋಗದ ವಸ್ತುವಾಗಿ ಮಾರ್ಪಡಿಸಿಕೊಂಡವರು. ಕುಟುಂಬ ಎಂಬ ನಾಲ್ಕು ಗೋಡೆಯೊಳಗೆ ಆಕೆಯನ್ನು ಬಂಧಿಯಾಗಿಸಿ, ಮಕ್ಕಳನ್ನು ಹೆರುವುದು, ಅವರ ಲಾಲನೆ-ಪಾಲನೆ ಮಾಡುವುದಕ್ಕೆ ಮಾತ್ರ ಆಕೆಯನ್ನು ಸೀಮಿತಗೊಳಿಸಿದೆ ಇಂದಿನ ಪುರುಷ ಸಮಾಜ. ಲಿಂಗ ತಾರತಮ್ಯ, ಆರ್ಥಿಕವಾಗಿ ಪರಾವಲಂಬನೆ, ಅವಕಾಶದಿಂದ ವಂಚಿತೆ, ಶಿಕ್ಷಣದ ಕೊರತೆ, ವರದಕ್ಷಿಣೆಯ ಪಿಡುಗು, ಅತ್ಯಾಚಾರ, ಭ್ರೂಣಹತ್ಯೆ ಇತ್ಯಾದಿ ದೌರ್ಜನ್ಯಗಳಿಂದ ಸಾಮಾಜಿಕ, ರಾಜಕೀಯ, ಆರ್ಥಿಕ, ಶೈಕ್ಷಣಿಕ, ಔದ್ಯೋಗಿಕ ಮುಂತಾದ ಕ್ಷೇತ್ರದಲ್ಲಿ ತನ್ನ ಪ್ರಾತಿನಿಧ್ಯ ಪಡೆಯಲು ಶತಮಾನದಿಂದ ಮಹಿಳೆಯರು ಹೆಣಗಾಡುತ್ತಿದ್ದಾರೆ. ಇದರ ಹೊರತಾಗಿಯೂ ಮಹಿಳೆಯರು ತಮ್ಮ ಸ್ನೇಹ, ಸಹನಶೀಲತೆ, ಮಮತೆ ಮುಂತಾದ ಸದ್ಗುಣಗಳಿಂದ ತನ್ನ ಕುಟುಂಬ ಮತ್ತು ದೇಶದ ಅಭಿವೃದ್ಧಿಗೋಸ್ಕರ ನಿಸ್ವಾರ್ಥ ಮನೋಭಾವದಿಂದ ಹಗಲು-ರಾತ್ರಿ ದುಡಿಯುತ್ತಿದ್ದಾರೆ.

21ನೇ ಶತಮಾನದಲ್ಲಿ ಲಗ್ನ ಹಾಕಿದ ಜಾಗತೀಕರಣವು ಮಹಿಳೆಯರಿಗೆ ಒಂದು ರೀತಿಯಿಂದ ಆಶಾದಾಯಕವು ಹೌದು. ಜಾಗತೀಕರಣವು ವಿಶ್ವದ

ವಿವಿಧ ದೇಶಗಳ ನಡುವೆ ಆರ್ಥಿಕ, ತಾಂತ್ರಿಕ, ರಾಜಕೀಯ, ಸಾಂಸ್ಕೃತಿಕ ಮತ್ತು ಸಾಮಾಜಿಕ ಸಂವಹನ ಹೆಚ್ಚಿಸುವ ಪ್ರಕ್ರಿಯೆಯಾಗಿದೆ. ಥಾಮಸ್ ಎಲ್. ಫ್ರೈಡ್ ಮ್ಯಾನ್ ಅವರು ತಮ್ಮ "ದಿ ವರ್ಲ್ಡ್ ಈಸ್ ಫ್ಲಾಟ್ : ಎ ಬ್ರೀಫ್ ಹಿಸ್ಟರಿ ಆಫ್ ದ ಟ್ವೆಂಟಿ ಫಸ್ಟ್ ಸೆಂಚುರಿ" ಎನ್ನುವ ಕೃತಿಯಲ್ಲಿ 21ನೇ ಶತಮಾನದ ಜಾಗತೀಕರಣದ ವಿದ್ಯಮಾನವನ್ನು ಕುರಿತು ವಿಶ್ಲೇಷಿಸುತ್ತಾರೆ. ಅವರ ಪ್ರಕಾರ, ಜಾಗತೀಕರಣವು ಅಭಿವೃದ್ಧಿಶೀಲ ರಾಷ್ಟ್ರಗಳ ಉದಯೋನ್ಮುಖ ಸಾಮರ್ಥ್ಯಗಳೊಂದಿಗೆ ಅವರ ಆರ್ಥಿಕ ಪರಿಕಲ್ಪನೆಯನ್ನು ಬದಲಾಯಿಸಿ ತಮ್ಮ ಪ್ರತಿಭೆಯನ್ನು ಹೊರಹಾಕಲು ಪ್ರತಿಕೂಲ ಅವಕಾಶ ದೊರಕಿಸಿ ಕೊಡುವುದಾಗಿದೆ.

ಕೈಗಾರಿಕ ಕ್ರಾಂತಿಯಿಂದ ಖ್ಯಾತಿಯಾದ 21ನೇ ಶತಮಾನದ ವಿದ್ಯಮಾನ ಜನರ ಆಲೋಚನೆ ಮತ್ತು ಕಲ್ಪನೆಗಳ ವೈವಿಧ್ಯತೆಯನ್ನು ಜಾಗತಿಕ ವ್ಯಾಪ್ತಿಯಲ್ಲಿ ಜನರಿಗೆ ತಲುಪಿಸುವ ನಿಟ್ಟಿನಲ್ಲಿ ಅವಕಾಶಗಳನ್ನು ಗಿಟ್ಟಿಸಿ ನಮ್ಮ ಆರ್ಥಿಕ ಅಭಿವೃದ್ಧಿಗೆ ಅಮೂಲಾಗ್ರವಾಗಿ ಪ್ರಯತ್ನಿಸುತ್ತಿದೆ. ಜಾಗತೀಕರಣವು ದೇಶದ ಆರ್ಥಿಕತೆಯಲ್ಲದೇ, ಸಾಮಾಜಿಕ ಸಂಬಂಧಗಳು, ಸಾಂಸ್ಕೃತಿಕ ಆಚರಣೆ ಮತ್ತು ರಾಜಕೀಯದ ಮೇಲೂ ಪ್ರಭಾವ ಬೀರಿದೆ.

ಕೈಗಾರಿಕೆ ಹಾಗೂ ಮಾಹಿತಿ ತಂತ್ರಜ್ಞಾನದ ಯುಗದಲ್ಲಿನ ಪ್ರಭಾವವು ಮಹಿಳೆಯು ವಿಶೇಷವಾಗಿ ಶಿಕ್ಷಣ, ಉದ್ಯೋಗ, ಆರೋಗ್ಯ ಮತ್ತು ನಾಗರಿಕ ಹಕ್ಕುಗಳ ಮೇಲೆ ಧನಾತ್ಮಕ ಪ್ರಭಾವ ಬೀರಿದೆ. ಜಾಗತೀಕರಣದ ಮಹಿಳೆಯರ ಕೆಲಸದ ಸಮಯ, ಹಾಗೂ ಅವಳ ಸುರಕ್ಷತೆಯೆಡೆಗೂ ವಿಶೇಷ ಕಾಳಜಿಯನ್ನು ಹೊಂದಿದೆ. ಇದರಿಂದಾಗಿ ಹೆಚ್ಚಿನ ಹೆಣ್ಣುಮಕ್ಕಳು ಮನೆಯಿಂದ ಹೊರಬಂದು ದುಡಿಯುವ ಅವಕಾಶವನ್ನು ಪಡೆದ ಕಾರಣದಿಂದ ಅವಳು ಆರ್ಥಿಕ ಸ್ವಾವಲಂಬನೆಯ ಜೊತೆಯಲ್ಲಿ ಅಧಿಕಾರದ ಚುಕ್ಕಾಣಿಯನ್ನು ಹಿಡಿದಿದ್ದಾಳೆ. ಪುರುಷನಂತೆ ಹೆಣ್ಣು ನಿರ್ಧಾರಗಳನ್ನು ತೆಗೆದುಕೊಳ್ಳುವಲ್ಲಿ ಸಮರ್ಥಳಾಗಿ ಸೈ ಎನಿಸಿಕೊಂಡಿದ್ದಾಳೆ.

ಇದಾಗ್ಯೂ, ಜಾಗತೀಕರಣದ ಹಾದಿಯಲ್ಲಿ ಮಹಿಳೆಯರು ಕೆಲಸದಲ್ಲಿ ಭಾಗವಹಿಸುವಿಕೆಯನ್ನು ಹೆಚ್ಚಿಸಲು ಭಾರತ ಸರ್ಕಾರವು ನೀತಿ, ಯೋಜನೆ ಮತ್ತು ಕಾನೂನುಗಳಲ್ಲಿ ಕೆಲವು ರಚನಾತ್ಮಕ ಬದಲಾವಣೆಗಳನ್ನು ಮಾಡಿದೆ. ಉದಾಹರಣೆಗೆ, ಪುರುಷ ಮತ್ತು ಮಹಿಳೆಯರಿಗೆ ಏಕರೂಪದ ಸಂಭಾವನೆಯನ್ನು ಪಾವತಿಸಲು 'ಸಮಾನ ಸಂಭಾವನೆ ಕಾಯಿದೆ' 1976ಯನ್ನು ಜಾರಿಗೊಳಿಸಿತು. 'ಹೆರಿಗೆ ಪ್ರಯೋಜನ 2017ರ ತಿದ್ದುಪಡಿ ಕಾಯ್ದೆ' ಮಹಿಳಾ ಉದ್ಯೋಗಿಗಳಿಗೆ ಲಭ್ಯವಿರುವ ಹೆರಿಗೆ ರಜೆಯ ಅವಧಿಯನ್ನು ಅಸ್ತಿತ್ವದಲ್ಲಿರುವ 12 ವಾರಗಳಿಂದ 26 ವಾರಗಳಿಗೆ ಹೆಚ್ಚಿಸಿದೆ. 1948ರ 'ಫ್ಯಾಕ್ಟರಿ ಕಾಯ್ದೆ'ಯ ಸೆಕ್ಷನ್ 66ನೇ ತಿದ್ದುಪಡಿಯು, ಮಹಿಳಾ ಕಾರ್ಮಿಕರ ರಾತ್ರಿ ಪಾಳಿ ಸಮಯವನ್ನು ಸಂಜೆ 7:00 ರಿಂದ ಬೆಳಿಗ್ಗೆ 6:00 ರವರೆಗೆ ಮಹಿಳಾ ಸ್ನೇಹಿಯಾಗಿ ಮಾರ್ಪಡಿಸಿತು. ಮುಂದುವರೆದು, 'ಕೌಟುಂಬಿಕ ದೌರ್ಜನ್ಯದಿಂದ ಮಹಿಳೆಯರ ರಕ್ಷಣೆ ಕಾಯಿದೆ' 2005, 'ಕೆಲಸದ ಸ್ಥಳದಲ್ಲಿ ಮಹಿಳೆಯರ ಲೈಂಗಿಕ ಕಿರುಕುಳ ತಡೆಗಟ್ಟುವಿಕೆ ನಿಷೇಧ ಮತ್ತು ಪರಿಹಾರ ಕಾಯ್ದೆ' 2013ರ ಜೊತೆಗೆ, ಮಹಿಳಾ ಸಬಲೀಕರಣಕ್ಕಾಗಿ ರಾಷ್ಟ್ರೀಯ ನೀತಿ 2001ರ ಅಡಿಯಲ್ಲಿ ಜಾಗತೀಕರಣ ಪ್ರಕ್ರಿಯೆಯಿಂದ ಸಾಮಾಜಿಕ ಮತ್ತು ಆರ್ಥಿಕ ಪರಿಣಾಮಗಳನ್ನು ಎದುರಿಸಲು ಭಾರತ ಸರ್ಕಾರವು 'ಇಂಟೆಗ್ರೇಟೆಡ್ ಸ್ಟೀಮ್', 'ರಾಷ್ಟ್ರೀಯ ಮಹಿಳಾ ಕೋಶ' ಎಂಬ ವಿವಿಧ ತಂತ್ರಗಳನ್ನು ಜಾರಿಗೊಳಿಸಿದೆ.

ಮೇಲ್ನೋಟಕ್ಕೆ ಇಷ್ಟೊಂದು ಸುಂದರ ಆಶಯಗಳನ್ನು ಒಳಗೊಂಡ ಜಾಗತೀಕರಣ ಎನ್ನುವ ಪರಿಕಲ್ಪನೆ ಮಹಿಳೆಯರ ಪಾಲಿಗೆ ಅಷ್ಟೊಂದು ಸುಂದರ ಹಾಗೂ ಸರಳವಾಗಿ ಉಳಿದಿಲ್ಲ. ದ್ವಿಪಾತ್ರವನ್ನು ನಿರ್ವಹಿಸುವ ಮಹಿಳೆಯು ದುಪ್ಪಟ್ಟು ಹೊರೆಯನ್ನು ಹೊರಬೇಕಾಗಿ ಬಂದಿರುವುದು ರೂರರಷ್ಟು ಸತ್ಯ. ಪೆಪ್ಸಿಕೋ ದ ಮಾಜಿ ಅಧ್ಯಕ್ಷ ಮತ್ತು ಸಿಇಒ ಇಂದ್ರ ಲೋಯಿಯವರು 'ದಿ ಅಟ್ಲಾಂಟಿಕ್'ನ ಮಾಲೀಕ ಡೇವಿಡ್ ಬ್ರಾಡ್ಲಿ ಅವರೊಂದಿಗಿನ ಸಂಭಾಷಣೆಯಲ್ಲಿ ಕೆಲಸ ಮಾಡುವ ಮಹಿಳೆಯರು ಲೋಷಕರಾಗಿ ಮತ್ತು ವೃತ್ತಿಜೀವನದ ನಡುವೆ ಸಮತೋಲನವನ್ನು

ಸಾಧಿಸಲು ಎದುರಿಸುತ್ತಿರುವ ಸ್ಥಿತಿಯನ್ನು ವ್ಯಕ್ತಪಡಿಸಿದ್ದಾರೆ.

ಮಹಿಳೆಯರು ಈಗಾಗಲೇ, ಪುರುಷರಿಗಾಗಿ ರಚಿತವಾದ ಉದ್ಯೋಗ ಜಗತ್ತಿಗೆ ಮಹಿಳೆ ಪ್ರವೇಶಿಸುತ್ತಿದ್ದಂತೆ, ನೇಮಕಾತಿಯಲ್ಲಿ ಲಿಂಗ ಪಕ್ಷಪಾತ, ಮದುವೆ ಮತ್ತು ಹೆರಿಗೆಯ ವೈಯಕ್ತಿಕ ಪ್ರಶ್ನೆಗಳು, ಕೆಲಸದ ಸಮಯದಲ್ಲಿ ಕಿರುಕುಳ, ವೇತನದ ಅಸಮಾನತೆ, ಹೆರಿಗೆಯ ನಂತರ ಉದ್ಯೋಗಕ್ಕೆ ಮರಳುವ ಒತ್ತಡ ಇವುಗಳು ಜಾಗತೀಕರಣ ಎಂಬ ಮಂಥನದಲ್ಲಿ ಮಹಿಳೆಯರು ಎದುರಿಸುತ್ತಿರುವ ಪ್ರಮುಖ ಸವಾಲುಗಳು. ಇದರ ಜೊತೆಗೆ, ಮದುವೆ ಮತ್ತು ಮಾತೃತ್ವ ಅನೇಕ ಮಹಿಳೆಯರನ್ನು ಒಂದೋ, ಸಾಮಾಜಿಕ/ ಕೌಟುಂಬಿಕ ಒತ್ತಡದಿಂದ ಅಥವಾ ಮನೆಯವರ ಬೆಂಬಲವಿಲ್ಲದೆ ಉದ್ಯೋಗವನ್ನು ಕೈಬಿಡುವಂತೆ ಮಾಡುತ್ತದೆ. 2018ರ ಐ.ಎಲ್.ಒ. ವರದಿಯ ಪ್ರಕಾರ ಪ್ರಪಂಚದಾದ್ಯಂತ 606 ಮಿಲಿಯನ್ ಮಹಿಳೆಯರು ಈ ಕಾರಣದಿಂದಾಗಿ ಕೆಲಸವನ್ನು ಬಿಟ್ಟಿದ್ದಾರೆ.

ನಿಸ್ಸಂದೇಹವಾಗಿ, ಜಾಗತೀಕರಣವು ಮಹಿಳೆಯರಿಗೆ ಉತ್ತಮ ಅವಕಾಶ ನೀಡುವುದರ ಜೊತೆಗೆ ಅನನ್ಯ ಸವಾಲುಗಳನ್ನು ನೀಡಿದೆ. ಲಿಂಗ ಅಸಮಾನತೆಯನ್ನು ನಿವಾರಿಸಿದಲ್ಲಿ ಮಹಿಳೆಯರ ಸಬಲೀಕರಣದ ಜೊತೆಗೆ ಜಾಗತಿಕ ಬಡತನವನ್ನು ಕೊನೆಗೊಳಿಸಬಹುದು. ಯಾವಾಗ ಮಹಿಳೆಯರಿಗೆ ಗುಣಮಟ್ಟದ ಶಿಕ್ಷಣ, ಆರೋಗ್ಯ, ರಕ್ಷಣೆ, ನಿರ್ಧಾರ ತೆಗೆದುಕೊಳ್ಳುವ ಅಧಿಕಾರ ಪಡೆದಾಗ ಜಾಗತಿಕ ಮಟ್ಟದ ಸುಸ್ಥಿರ ಅಭಿವೃದ್ಧಿಯು ಸಾಧ್ಯ. ಈ ನಿಟ್ಟಿನಲ್ಲಿ ಜನರ ದೃಷ್ಟಿಕೋನವು ತರ್ಕಬದ್ಧ ಚಿಂತನೆಯೊಂದಿಗೆ ಬದಲಾವಣೆಯ ಅಗತ್ಯತೆ ಬಹಳ ಮುಖ್ಯ.

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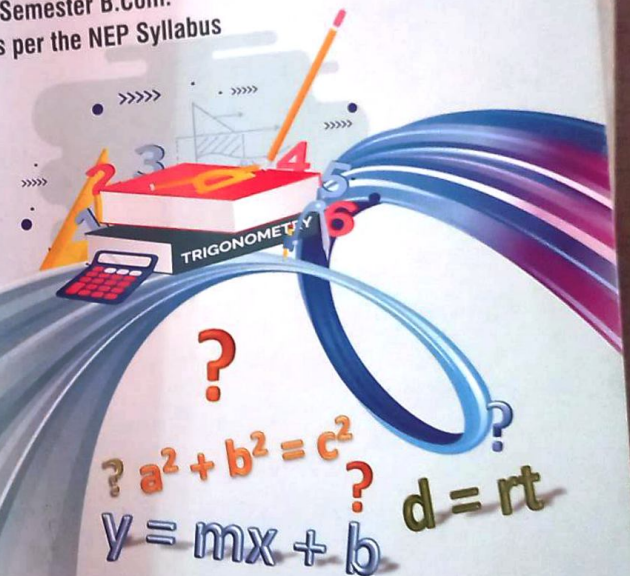


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Fungal Biology

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Fungal biology has an integral role to play in the development of the biotechnology and biomedical sectors. It has become a subject of increasing importance as new fungi and their associated biomolecules are identified. The interaction between fungi and their environment is central to many natural processes that occur in the biosphere. The hosts and habitats of these eukaryotic microorganisms are very diverse; fungi are present in every ecosystem on Earth. The fungal kingdom is equally diverse, consisting of seven different known phyla. Yet detailed knowledge is limited to relatively few species. The relationship between fungi and humans has been characterized by the juxtaposed viewpoints of fungi as infectious agents of much dread and their exploitation as highly versatile systems for a range of economically important biotechnological applications. Understanding the biology of different fungi in diverse ecosystems as well as their interactions with living and non-living is essential to underpin effective and innovative technological developments. This series will provide a detailed compendium of methods and information used to investigate different aspects of mycology, including fungal biology and biochemistry, genetics, phylogenetics, genomics, proteomics, molecular enzymology, and biotechnological applications in a manner that reflects the many recent developments of relevance to researchers and scientists investigating the Kingdom Fungi. Rapid screening techniques based on screening specific regions in the DNA of fungi have been used in species comparison and identification, and are now being extended across fungal phyla. The majorities of fungi are multicellular eukaryotic systems and therefore may be excellent model systems by which to answer fundamental biological questions. A greater understanding of the cell biology of these versatile eukaryotes will underpin efforts to engineer certain fungal species to provide novel cell factories for production of proteins for pharmaceutical applications. Renewed interest in all aspects of the biology and biotechnology of fungi may also enable the development of “one pot” microbial cell factories to meet consumer energy needs in the 21st century. To realize this potential and to truly understand the diversity and biology of these eukaryotes, continued development of scientific tools and techniques is essential. As a professional reference, this series will be very helpful to all people who work with fungi and should be useful both to academic institutions and research teams, as well as to teachers, and graduate and postgraduate students with its information on the continuous developments in fungal biology with the publication of each volume.

Vijay Rani Rajpal • Ishwar Singh •
Shrishail S. Navi
Editors

Fungal diversity, ecology and control management

 Springer

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Preface

Food security is one of the major concerns in the world today. The continuously increasing world population coupled with global climate change poses a grave challenge to feed a billion mouths. Fungi play a significant role in modulating plant's environment, in both rhizosphere and phyllosphere resulting in growth changes that affect agricultural productivity significantly. Fungi have serious consequences on food security in the changing global environmental scenario.

Fungi play key roles in the ecosystem as decomposers, mutualists and pathogens and represent the second most diverse group after insects. Fungal diversity is not only reflected in its morphological characters but also in bioactive molecules produced, their pathogenicity and virulence, and impact on crop production. The increasing number of infectious fungal diseases is regarded as a global threat to agricultural productivity and food security. Therefore, it is important to document the fungal diversity and inventorize it. Further, to sustain agricultural productivity, it is important to mitigate or control the plant diseases. Plant pathogens cause severe losses to crops and significantly reduce the quality and quantity of agricultural products. The global tendencies are shifting towards a preferred use of various biocontrol agents in plant disease management. Fungal antagonists are widely used as biocontrol agents to control plant diseases globally. Biological control mechanism, however, needs an understanding of the complex interactions among plants, pathogens, and the environment.

This book provides a consolidated and comprehensive account of research being conducted by scientists all over the world in the areas of fungal biodiversity, fungal ecological services, fungal biology and ecology, and biological disease control and provides perspectives on crop protection and management and control of various fungal pathogens. The book also serves as an invaluable resource for researchers and educators working in the above fields. It will be useful to students studying mycology, plant pathology, crop protection, agricultural sciences, and plant sciences. Students will find this book handy to clear their concepts and to get an update on the recent research conducted in this area. Also, scientists involved in biological and

agricultural research, crop management and environmental sciences and industries that manufacture agrochemicals as well as small- to large-scale growers and producers will find the book useful.

Delhi, India
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Ames, IA, USA

Vijay Rani Rajpal
Ishwar Singh
Shrishail S. Navi

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The editors sincerely thank all the authors for agreeing to contribute chapters despite their hectic schedules and other work commitments and also for putting in their sincere efforts for providing up-to-date information. We also thank the authors for providing their revisions on time to avoid any delays in publication of this book. We are thankful to Prof. K.G. Ramawat for inspiring us to take up this assignment. Vijay Rani Rajpal is thankful to the two other co-editors for their active involvement from inception to reviewing, editing, and compilation process through the course of this book. The book would not have been possible without their involvement and whole-hearted support.

The editors gratefully acknowledge their families for their understanding, patience, and emotional support during the course of this book. Our sincere thanks are due to the whole Springer team involved in the production of this book. We especially appreciate Ms. Aakanksha and Ms. Priya for their continued support.

We are sure that this book will attract scientists, undergraduates, graduates, and postdocs who are working on fungal diversity, ecology, and biocontrol mechanisms.

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About the Summit

Avlokan 2.0 was the second edition of the International Summit series, organized by the Student Research Development Cell-Vidhyanidhi and the Faculty Research Cell-Gyanidhi, Center for Management Studies, Jain (Deemed to-be-University).

The theme of the Avlokan 2.0-2022 was “*Beyond Sustainability- Trends in Regenerative, Socially Responsible, Community Ventures.*” The post-pandemic world, grappling with climate change and inequity, is looking beyond mere sustainability from businesses. Stakeholders are increasingly questioning the sufficiency and adequacy of sustainable business models and seek aspirational and inspirational solutions for tackling the mentioned global ills. People everywhere are waking up to the reality that it is not enough to stop damaging the resources of the earth. There is an increasing awareness about the need for restoring the natural resources, healing the earth, and making sure that no one person or community is left behind in the progress saga. In this context, many thought leaders are evangelizing the concepts of Socially Responsible Business, Regenerative organization, and Community Entrepreneurship. Many entrepreneurs too, are raising to the call of the times and are adopting new age entrepreneurship models from fintech to gig & platform based to virtual cooperatives for farmers. This summit strived to spotlight these developments by providing a platform for both theorists and practitioners of new age entrepreneurship.

The Summit offered a multifaceted exposure to the concepts and practices of ‘New Age Entrepreneurship’, in the form of Research Paper Presentations, Key-note Sessions, Panel Discussions by eminent speakers of global repute, and networking opportunities. This exposure was an attempt to metamorphose the budding entrepreneurs by enabling them to experience a phenomenal journey of 9 days in various domains of new-age entrepreneurship.

Objectives of the Summit

- Provided participants with a platform to present their current work and results in the field of new-age entrepreneurship
- Fostered the spirit of self-reliance among young minds and helped them build their future through exposure to new age entrepreneurship

- Created space for globally acclaimed entrepreneurs, academic experts, and entrepreneurship facilitators to discuss, debate, and exchange ideas
- Provided networking and collaborative opportunities for entrepreneurs and academicians to create contemporary entrepreneurial experiences

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Dr. Varsha Agarwal

Prof. Sunitha B.K.

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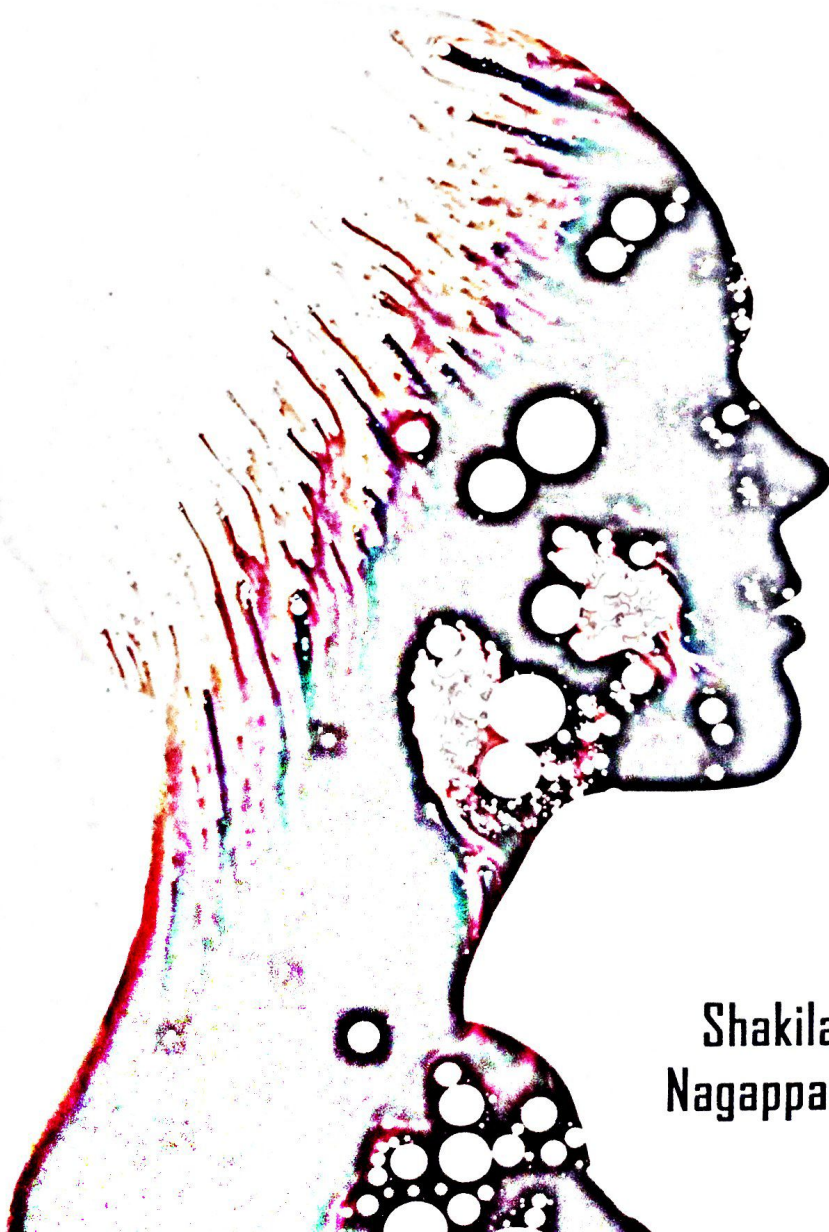
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WOMEN

EMPOWERMENT



Shakila Hegde
Nagappa Gowda K

WOMEN EMPOWERMENT

HISTORY, ORGANIZATIONS AND SURVEY
OF THE DISTRICT OF DAKSHINA KANNADA,
KARNATAKA STATE

by

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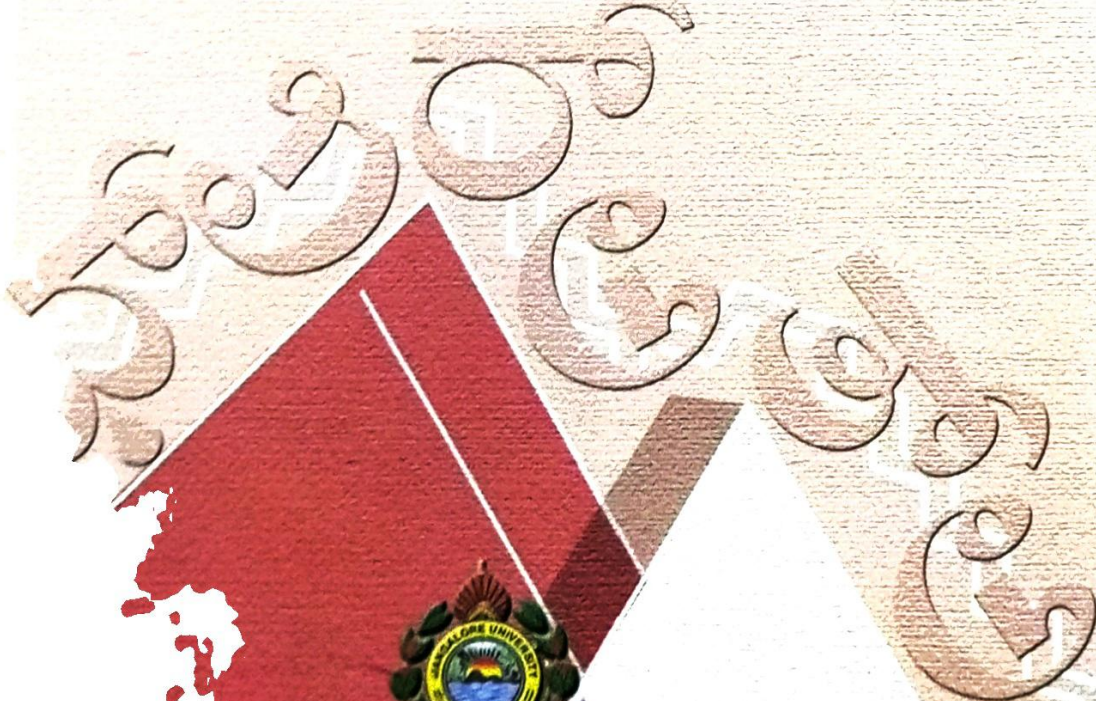
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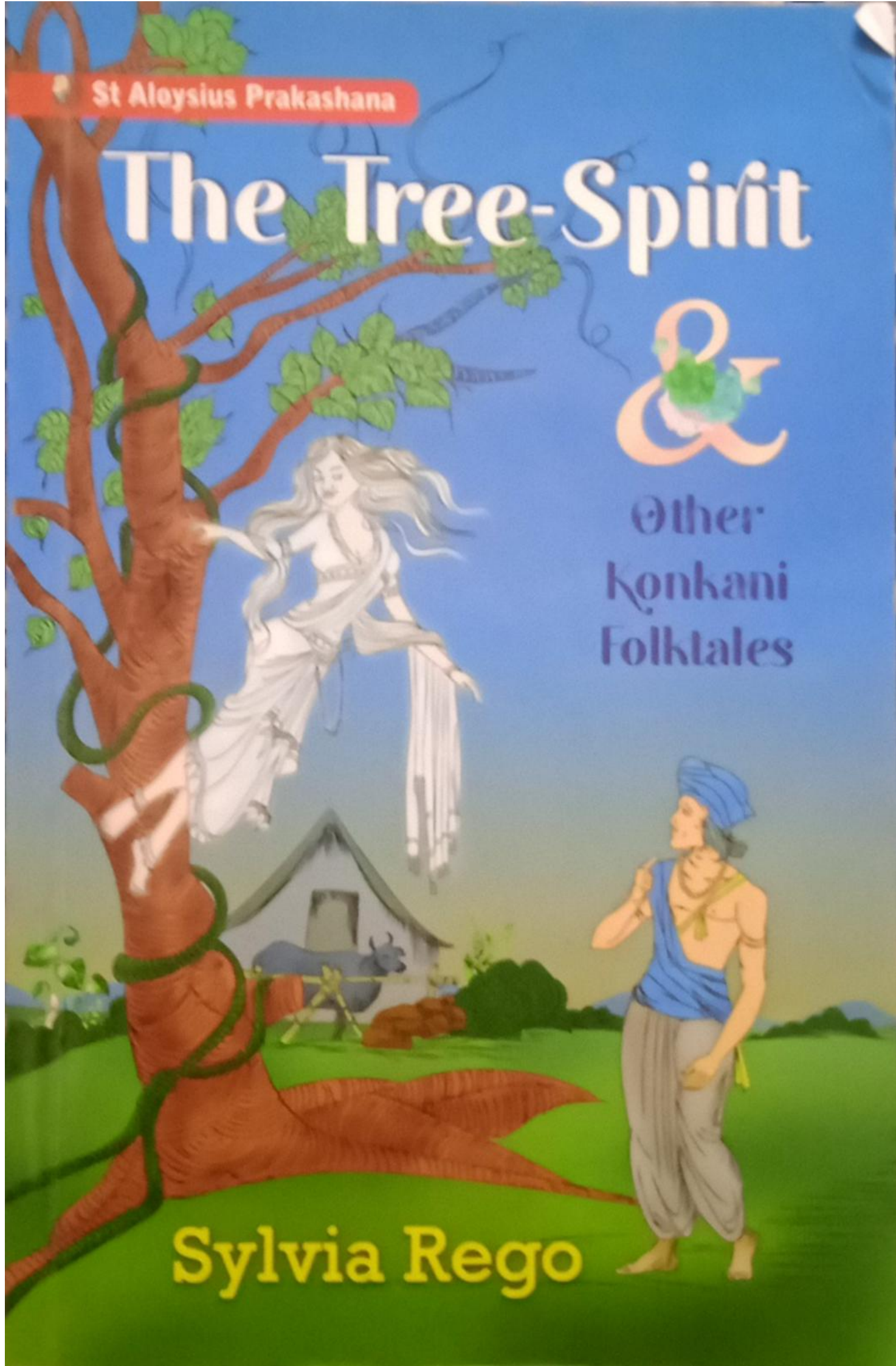
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Current Aspects in Pharmaceutical Research and Development

Vol. 1

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This book covers key areas of Pharmaceutical Research and Development. The contributions by the authors include Acne vulgaris, alopathy, hyperkeratinizations, pilosebaceous gland, hyperseborrhoea and propionibacterium, Hypertension, cardiovascular disorders, red raspberry, cranberry, anthocyanins, ellagitannins, bioactive compounds, Erythrina variegata, MDA-MB-231, cytotoxicity, apoptosis, Rutin, cytotoxicity, High-Resolution Liquid chromatography Mass Spectrometry (HRLCMS), Cinnamomum Tamala and Spilanthes Acmella extract, antimicrobial evaluation, Phytochemical screening, lozenges, evaluation parameter, Heavy Metals, PAHs, Risk Assessment, Soft Drink, target hazard quotient (THQ), incremental lifetime cancer risk (ILCR), Lutein, ciprofloxacin, total RBCs count and total WBCs count, GABA_A receptor, neuron disorders, abuse of alcohol, chronic effects of alcohol, benzodiazepines, ligand-gated ion channels (LGICs), Fexofenadine hydrochloride, montelukast sodium, HPLC, validation, simultaneous estimation, ICH guidelines, Multiple illnesses, drug reactions, remedial measures, Geriatrics, Visual illusions, rich afterimage illusion, eye movements, visual field constantcy, gaze direction, spatial vision, eye position, residual illusion, head tilt, proprioceptive signals, static retinal image, MRP2, miRNA133a, cyclosporine nephrotoxicity, proteinuric disease, FSGS, ET-BR ko-/rats, Prostaglandins, arachidonic acid, differentiation inducers, differentiation therapy, wound healing, progenitor stem cells, chemo-surveillance. This book contains various materials suitable for students, researchers and academicians in the field of Pharmaceutical Research and Development.

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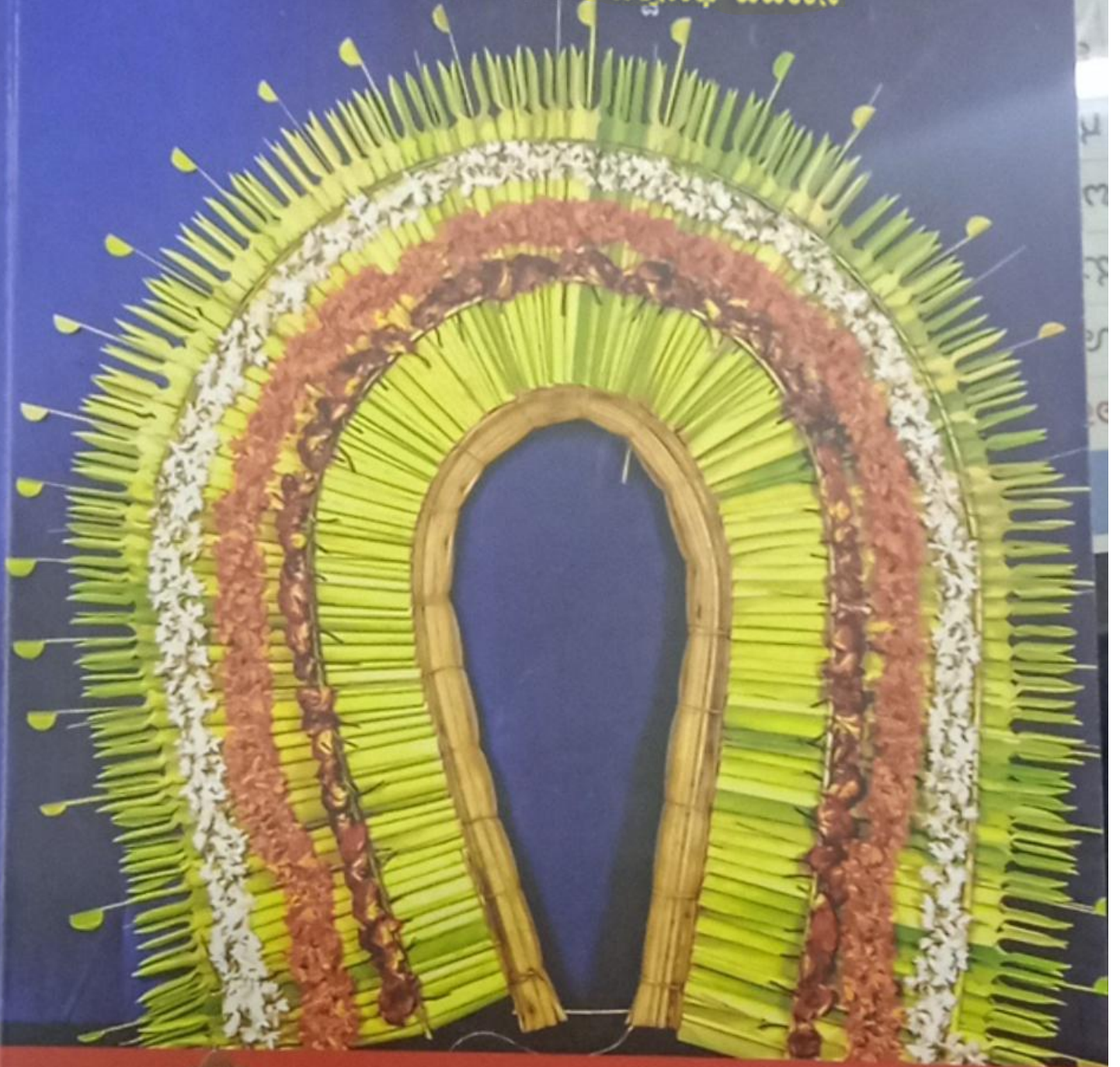
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