



Details of the Collaborative Activity

Name of the Collaborating Institute: Sky Fire Applied Intelligence Pvt Ltd. Jakkur, Bengaluru,

Name of collaborating department from YDU: Research Staff/ Community team of Yenepoya (Deemed to be University)

MOU: 2019

Activities:

2018-19

- **Software Application support:** The software for screening the oral cancer cases was provided by the collaborating industry, Sky Fire Applied Intelligence Pvt. Ltd. The images were analyzed for potentially malignant and suspicious lesions in the oral cavity using *Berry Doctor Software* and comparing the efficacy of the machine learning in identifying the potentially malignant and suspicious lesions in the oral cavity. The software was used to analyze the images to identify the images for malignancy.
- **MOU:** The MoU was signed between the parties in the year 2019.

ATTESTED

Dr.Gangadhara Somayaji K.S.
Registrar
Yenepoya (Deemed to be University)
University Road, Deralakatte
Mangalore- 575 018, Karnataka

Memorandum of Understanding

Between Yenepoya (Deemed to be University), Mangalore and SkyFire Applied Intelligence Pvt Ltd

"Yenepoya (Deemed to be University)" is a deemed to be university established to provide higher education in Dakshina Kannada district of Karnataka state. The university is a private institute catering higher education to the aspirants with a motto to provide qualified professionals to the world and serve the society (hereinafter referred to as Yenepoya (Deemed to be University) or Party 1) which expression shall unless it be repugnant to the context or meaning thereof shall deem to mean and include its successors and assignees and consists of **ONE PARTY**;

AND

"SkyFire Applied Intelligence Pvt Ltd", a Company incorporated under the Companies Act 2013, having its Head Office at # 5/2, 6/3, 6/4, 6/5 & 6/6, Flat 106, Wing-A, Mandalakunte, YNK New Town, Yelahanka, Bengaluru, Karnataka - 560064, India (hereinafter referred to as Skyfire or Party2 or Atom360) and which expression shall unless it be repugnant to the context or meaning thereof shall deem to mean and include its successors and assignees and consists of **OTHER PARTY**;

WHEREAS Yenepoya (Deemed to be University) has been creating awareness and conducting screening camps to prevent/detect Oral Cancer; and

WHEREAS according to the survey, majority of oral cancer patients visit hospitals with an advanced stage of disease. The survival rate of advanced oral cancer is very dismal.

WHEREAS early diagnosis, timely and optimal treatment can increase the survival rate of the patients. Creating awareness about oral cancer to bring the patients early to the hospital can reduce morbidity and mortality and would result in better quality of life; and

WHEREAS Skyfire is a private organization that is interested in screening for oral cancer to bring patients early to the hospital in order to reduce deaths due to oral cancer in India; and Skyfire is developing tools and mobile applications for helping people to do the oral cancer screening process early using mobile applications and artificial intelligence; and

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WHEREAS Artificial Intelligence tools require large clinically validated datasets to test and understand various aspects of oral cancer; and

WHEREAS Skyfire is making significant efforts in generating such datasets and thus pave the way for people to reach to the hospital early and get cured; and

WHEREAS Yenepoya (Deemed to be University) and Skyfire have discussed and reached to a conclusion that a partnership for the proposed research study titled "Image based clinical assessment and histopathological correlation of oral lesions" within the context of the proposed research is in the best interests of public health. The partnership is critical to maximizing the potential benefits of advancing the Oral Cancer screening; and

WHEREAS the benefits to public health include, 1) Early diagnosis; 2) Reducing the intensity of therapy; 3) Lesser morbidity and mortality; 4) Better quality of life 5) Lower cost of diagnosis and treatment 6) Reduced duration of the treatment 7) Less trauma to family 8) Social acceptance

WHEREAS the benefits to Yenepoya (Deemed to be University) include 1) Better oncologic outcome 2) Research publications 3) Early stage low cost detection of oral cancer across the state 4) Reduction in time and cost of machine and manpower of higher order treatment

WHEREAS the benefits to Skyfire include 1) Clinically approved data for validating the AI algorithms 2) Scientific and ethical board clearances for tools developed. 3) Research publications

NOW, THEREFORE, the parties agree to combine their resources and efforts to complete the research "Image based clinical assessment and histopathological correlation of oral lesions", a model of screening Oral Cancer early. In order to accomplish the goals of this MoU, the parties agree as follows:

A . Yenepoya (Deemed to be University) Responsibility

1. The research staff/ community medicine team from Yenepoya (Deemed to be University) will collect data through Skyfire's mobile application, after explaining the Informed Consent Form to the patient and getting a written consent from the patient. Patients with suspected cancerous lesions will be asked to undergo investigation like biopsy, CT scan etc and the histopathological results will be shared with Skyfire.
2. Yenepoya (Deemed to be University) will have no objection for using its name as empanelled Hospital on advertisements, website, and marketing materials of Skyfire and sponsored by Skyfire after obtaining required permission from the appropriate authorities of Yenepoya (Deemed to be University).



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3. Yenepoya (Deemed to be University) will have no objection in Skyfire having access to the data collected from this research before, during and after the research.

B. Skyfire Responsibilities

1. Skyfire will develop and provide a mobile application to collect data and to screen oral cancer.
2. Skyfire will develop and provide tool for doctor to remotely diagnose and identify pre-cancerous/non-cancerous/non-cancerous lesions.
3. Skyfire will ensure to keep the systems with an uptime of 99%

C. Mutual Responsibilities

1. Yenepoya (Deemed to be University) will not outsource any of the data collection, investigation process, data or the outcome of the research to any 3rd parties, unless agreed upon by both the parties mutually in writing.
2. Any research related publication honours will be shared by the Yenepoya (Deemed to be University) and Skyfire
3. Both parties agree to keep the communication during the period of research.

D. General Provisions

Duration: This MoU shall commence from and shall be effective for period of the research study.

Publications: Any publications arriving out of the research project will be made with both the parties agreeing for the contents of the research publications.

Modification/Termination: This MoU may be amended by the written agreement of the parties. Either party may terminate this MoU by providing thirty (30) days written notice to the other party.

Confidentiality: Confidential information includes all non-public, proprietary or sensitive information as defined by Information Technology (Reasonable security practices and procedures and sensitive personal data or information) Rules, 2011), that is disclosed and exchanged between the parties, whether in writing or electronically, or orally, including the product and the data collected via the product, but does not include information which or becomes publically available. Both parties agree to maintain confidentiality of the above mentioned information and ensure to preserve the same during and after the study.

This Agreement and the parties therein shall be governed by laws of the State of Karnataka, India and all disputes arising out this Agreement subject to jurisdiction of Courts in city of Mangalore, Karnataka only.



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IN WITNESS WHEREOF the parties hereto have executed this MoU on the date

For Yenepoya (Deemed to be University):

For SkyFire :

Rizma Banu, AI Researcher,

SkyFire Applied Intelligence Pvt Ltd SERVICES. LTD

5/2, 6/3, 6/4, 6/5 & 6/6, Flat 106, Wing-A, Mandalakunte, YNK New Town, Yelahanka,
Bengaluru, Bangalore, Karnataka - 560064, India.

On behalf of Skyfire Applied Intelligence

On behalf of Yenepoya (Deemed to be University)

Reuben Fernandes

Date 03/06/2019

Chief Executive Office,

Skyfire Applied Intelligence

Dr. Gangadhara Somayaji KS

Date 04/06/2019

Registrar,

Yenepoya (Deemed to be University)

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Screened 1/10

right inner

NON CANCEROUS

CANCER

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Mysuru - 575 018, Karnataka.

LEUKOPLAKIA

MELANOPLAKIA

Screened 10/10

firming that right inner cheek is annotated leukoplakia
firming that right tongue is annotated retry
firming that palate is annotated reUpload

ur notes, if any. _____

tient needs to show a doctor for the lichen planus

CASE CLOSE



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On behalf of Skyfire Applied Intelligence

On behalf of Yenepoya (Deemed to be University)

Reuben Fernandes

Date 8/06/2019

Chief Executive Office,

Skyfire Applied Intelligence

Dr. Gangadhara Somayaji KS

Date 04/06/2019

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