1️⃣ Design and Development of an AI-driven Personalized Devotional Content Recommendation and Meditation System

Scope: Build a hybrid recommendation engine for devotional content (mantras, bhajans, scriptures) based on user preferences, context (festival, mood, past activity), and meditation habits.
Research Potential: Unique contribution in *recommender systems for spiritual/mental well-being*. Could lead to conference papers on hybrid recommendation or personalization in niche domains.
Hardware (optional): Cheap IoT-based meditation timer (ESP32 + buzzer/light for reminders).
Objectives:

1. Curate a structured dataset of devotional content with metadata (deity, mood, time of day).
2. Develop a hybrid AI recommendation system (NLP + collaborative filtering).
3. Evaluate personalization effectiveness through user interaction analysis.

2️⃣ A Speech Processing Framework for Accurate Chant Recognition and Meditation Monitoring

Scope: Develop a speech-to-text + phonetic matching system to recognize Sanskrit/Hindi mantras in different accents and monitor chanting quality. Extend to meditation monitoring via chanting patterns.
Research Potential: Publishable in *speech processing / DSP* domain since mantra recognition is underexplored.
Hardware (optional): Low-cost mic + Raspberry Pi/Arduino to record chanting for offline processing.
Objectives:

1. Create a dataset of recorded mantra chants in multiple accents.
2. Train a speech model for accurate recognition and pronunciation evaluation.
3. Design a meditation monitoring system based on chant patterns and duration.

3️⃣ Augmented Reality-based Immersive Temple Experience and Ritual Guidance System

Scope: Develop AR modules to provide temple experiences (darshan, aarti, rituals) and step-by-step ritual guidance using 3D models + AR overlays.
Research Potential: Novel AR application in religious/cultural heritage preservation and accessibility studies.
Hardware (optional): AR via mobile phone (cheapest route, no headset needed).
Objectives:

1. Build a dataset of 3D temple models, rituals, and related multimedia.
2. Develop AR-based guidance for performing rituals and immersive experiences.
3. Evaluate effectiveness in enhancing spiritual engagement.

4️⃣ AI-based Predictive Modeling of Personalized Horoscope and Festival Calendar System

Scope: Develop AI models to predict personalized horoscopes and generate festival calendars based on planetary data + cultural rules.
Research Potential: Publishable in *predictive modeling, astrology computation, and cultural knowledge systems*. Could also lead to dataset contribution of planetary positions + festivals.
Hardware (optional): Low-cost e-ink devotional calendar device (optional, but interesting).
Objectives:

1. Build dataset of planetary positions, horoscopes, and festival timings.
2. Train predictive models to generate daily horoscope and reminders.
3. Design personalized festival/horoscope recommendations for users.

5️⃣ AI-powered Personal Mantra Manifestation and Affirmation Generator

Scope: Use NLP models to generate personalized affirmations/mantras for manifestation (success, positivity, stress relief). Integrate with user goals.
Research Potential: Falls under *text generation and computational positive psychology*. Could be publishable as generative AI for well-being.
Hardware (optional): Minimal — maybe a simple smart display to show daily affirmation.
Objectives:

1. Curate dataset of affirmations, mantras, and manifestations.

2. Develop NLP model to generate personalized daily affirmations.
3. Evaluate affirmation impact through user feedback and NLP metrics.

6️⃣ Knowledge Graph-based Modeling of Hindu Festivals, Rituals, and Scriptures for Devotional Guidance

Scope: Build a knowledge graph connecting deities, festivals, rituals, scriptures, and mantras → use it to answer queries (e.g., "What mantra is for wealth during Diwali?").
Research Potential: Strong contribution in *semantic web & knowledge representation in cultural domains*. Potential for Kaggle dataset release.
Hardware (optional): None required.
Objectives:

1. Curate dataset of festivals, rituals, scriptures, and associated metadata.
2. Build a knowledge graph linking entities with relationships.
3. Develop a query system for personalized ritual and festival guidance.

7️⃣ Sentiment and Context-aware Delivery of Spiritual Content using Natural Language Processing

Scope: Use sentiment analysis on user inputs/feedback to deliver appropriate content (e.g., peaceful mantra when user is stressed, energetic bhajan when happy).
Research Potential: Niche application in *sentiment-aware content delivery* for emotional/spiritual well-being. Could be applied beyond religion too.
Hardware (optional): None required.
Objectives:

1. Build a dataset of devotional comments/feedback annotated with sentiment.
2. Train sentiment analysis + NLP-based content classification models.
3. Deliver contextually relevant devotional material based on sentiment.